April 17, 2008

Ladies and Gentlemen:

As Comptroller, I am committed to creating an environment that encourages the Texas economy to continue to grow. My office stands ready to assist communities and businesses in their efforts to seek out new opportunities and create new jobs. Together we can improve the quality of life of all Texans.

One of my responsibilities as Texas Comptroller is to analyze factors affecting the state's economy. As part of fulfilling this responsibility, my office is releasing a series of reports highlighting economic development issues unique to the various regions of this state.

Texas in Focus: High Plains is the first of these regional reports. It provides information on the issues that affect this area's 41 counties and highlights many of the region's successes. The region's decision makers will be able to use this report as a tool to drive economic growth.

The High Plains economy is changing. How the region meets the challenges and opportunities is critical for continued growth. I hope you will find this report helpful.

Sincerely,

Susan Combs

Texas in Focus: High Plains

Table of Contents

Introduction

With its enormous size, large and diverse population and vast array of natural resources, Texas plays a significant role in the nation's economy. And Texas continues to grow, generating new jobs and providing better opportunities for its citizens to prosper.

It is important to all Texans that the state continue its economic growth and seek out new opportunities. And the role of state government is to help create an environment in which this can happen.

The Texas Comptroller's office analyzes factors affecting the state's economy and uses this information to prepare its biennial forecast of state revenue. To perform this task, the agency's economists keep their fingers on the pulse of the state, detecting changes as they occur and identifying trends that will affect our common future.

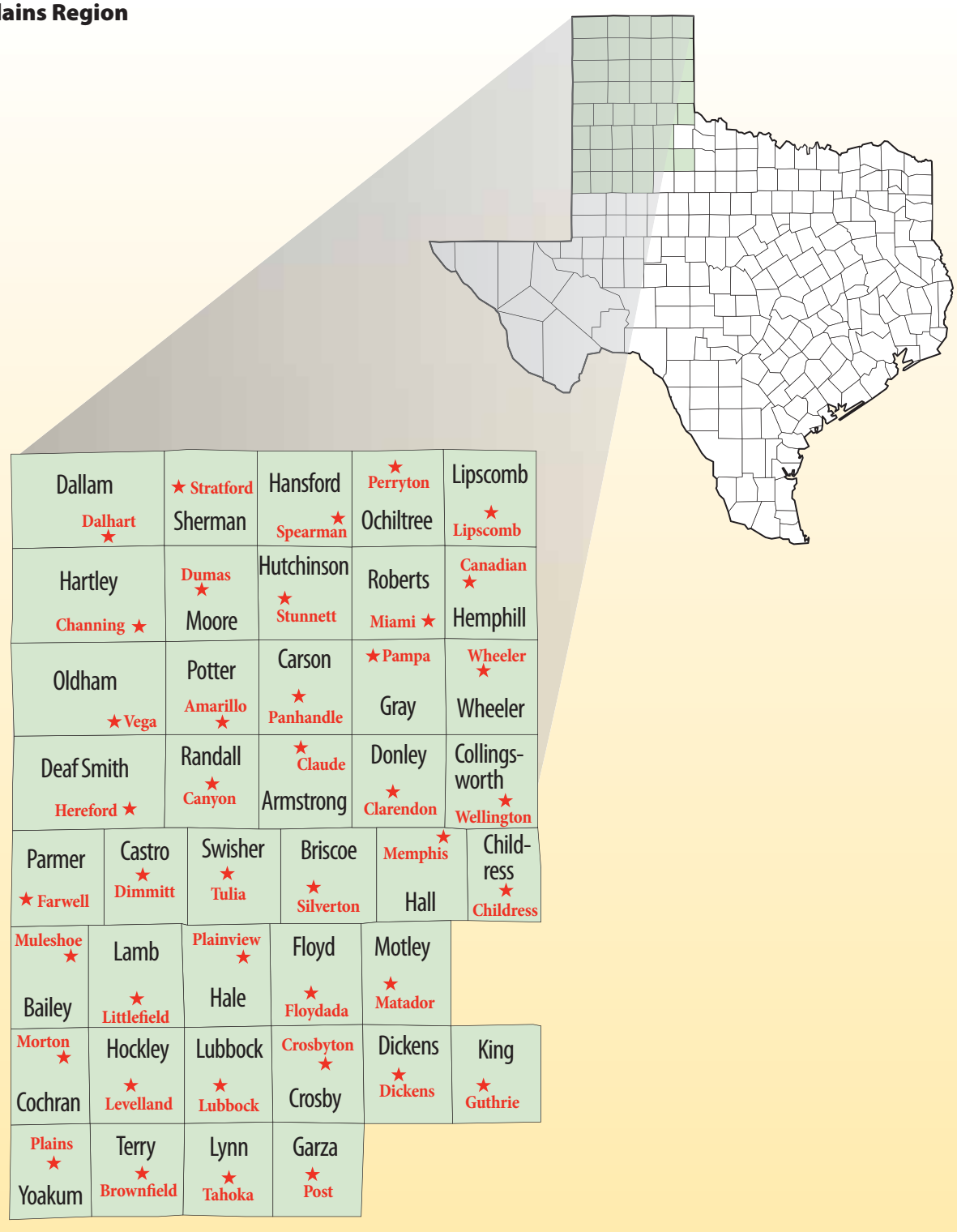
In January 2008, the Comptroller released *Texas in Focus: A Statewide View of Opportunities*, a report examining a series of issues affecting the state and the state's economy as a whole. This report, *Texas in Focus: High Plains*, examines issues affecting this economic region of Texas, which includes the Panhandle Regional Planning Commission and South Plains Association of Governments. The High Plains region is made up of 41 counties that stretch from the Panhandle through the South Plains (**Exhibit 1**), a region including the cities of Amarillo and Lubbock.

PHOTO: Philip Brown/Texas Tech University

Cotton fields near Lubbock, Texas

Exhibit 1

High Plains Region



Source: Texas Comptroller of Public Accounts.

This report provides information on the forces driving change in the High Plains, and examines factors that may affect the development of the region's economy. State leaders, county and city officials, chambers of commerce, economic development corporations and many others may use this report as a tool to stay on top of important issues as they work to keep their local economies thriving. Areas explored in this report include:

Economic Development

The High Plains region's economic outlook is promising. The region's rate of job growth will nearly match that of the state as a whole through 2012, with Amarillo creating jobs at a slightly faster rate than Lubbock. Though the region traditionally has been dominated by agriculture and oil and gas, a broader economy is emerging from growth in the service industries.

Demographics

A slightly greater share of the region's population is between the ages of 10 and 24 than is the state's. A young population means more people will be entering the job market and filling many of the newly created service jobs.

Infrastructure

The High Plains' infrastructure provides the region with a solid basis for future economic growth. Its abundant natural resources will continue to meet the demands of the region's industries, rural communities and urban centers during the near future.

Health Care

Delivering health care in an area such as the High Plains, with its widely dispersed rural population, presents a challenge for the region's families and medical professionals. But innovations such as telemedicine and telepharmacy are shrinking these distances and improving access to health care, while new educational opportunities are increasing the region's number of nurses.

Education

The skills needed to prosper in an expanding and increasingly technology-based economy come from a good education. The High Plains region is fortunate to have school districts that outperform the state in several areas and offer lower-than-average class sizes, as well as affordable institutions of higher education, including Texas Tech University.

"Texas" Musical Drama

Summer visitors to Palo Duro Canyon in Armstrong County can be entertained with a musical version of the history of Texas performed on an open-air stage. For 41 years, the show has told the story of the settlers of the Panhandle in the 1800s; highlights include impressive special effects, a fireworks display and the ride of a cowboy carrying a large Texas flag across the cliff ridge. The stage is located at the base of a 600-foot cliff, a dramatic backdrop for singing and dancing cowboys and cowgirls performing each night from June to August.[1]

In 2007, "Texas" drew 58,000 visitors, 10 percent more than in the previous year. More than half of the visitors traveled more than 100 miles to attend the show. The play has contributed more than $30 million to the local economy since its first performance in 1966.[2]

ABC Pro Rodeo

The Lubbock Boys & Girls Club and other local charities are beneficiaries of the popularity of Lubbock's rodeo. Since the ABC rodeo began in 1941, it has donated more than $1 million dollars to the community. Professional cowboys and cowgirls travel from as far away as Florida and California to be a part of this Professional Rodeo Cowboys Association (PRCA) event. A weekend of calf roping, bull riding, barrel racing and even bull fighting draw more than 10,000 visitors. Aside from the funds raised for charity, the event generates more than $190,000 in the local economy each year. The 66th Annual ABC Pro Rodeo was held April 3rd through 5th, 2008.[3]

Endnotes

1. AmericanProfile.com, "Staging a Texas Legacy," by Sheryl Smith-Rodgers (April 16, 2007), http://www.americanprofile.com/spotlights/article/5273.html; and Texas Panhandle Heritage Foundation, "Texas Musical Drama in Palo Duro Canyon," http://www.texas-show.com/about.html. (Last visited November 2, 2007.)
2. Interview with Bill Anderson, executive director, Texas Panhandle Heritage Foundation, Canyon, Texas, November 29, 2007.
3. Interview with Ray Short, chairman, ABC Pro Rodeo, Lubbock, Texas, November 27, 2007.

Economic Development

Communities throughout the state are working hard to attract capital investment and create more and better-paying jobs for their residents. To this end, the High Plains' government and economic leaders must promote their area's work force, the quality of the schools and infrastructure and the economic incentives they can offer to attract businesses.

Services are becoming increasingly important to the economy of the High Plains region, reflecting a broader economic environment of increased competition and technological change. The region has lagged behind the rest of the country in its progression toward a service-oriented economy, due to its traditional economic supports of agriculture and oil and gas. Most of tomorrow's jobs in the region, however, will provide services, from retail salespersons to nurses and teachers.

But the nature of the work, and the pay provided by service jobs, vary widely. If the High Plains is to capture its share of high-paying, high-skill service jobs, it must continue providing educational and training resources.

The Amarillo metro area will create jobs fastest through 2012, equalling statewide job growth.

Economic Trends

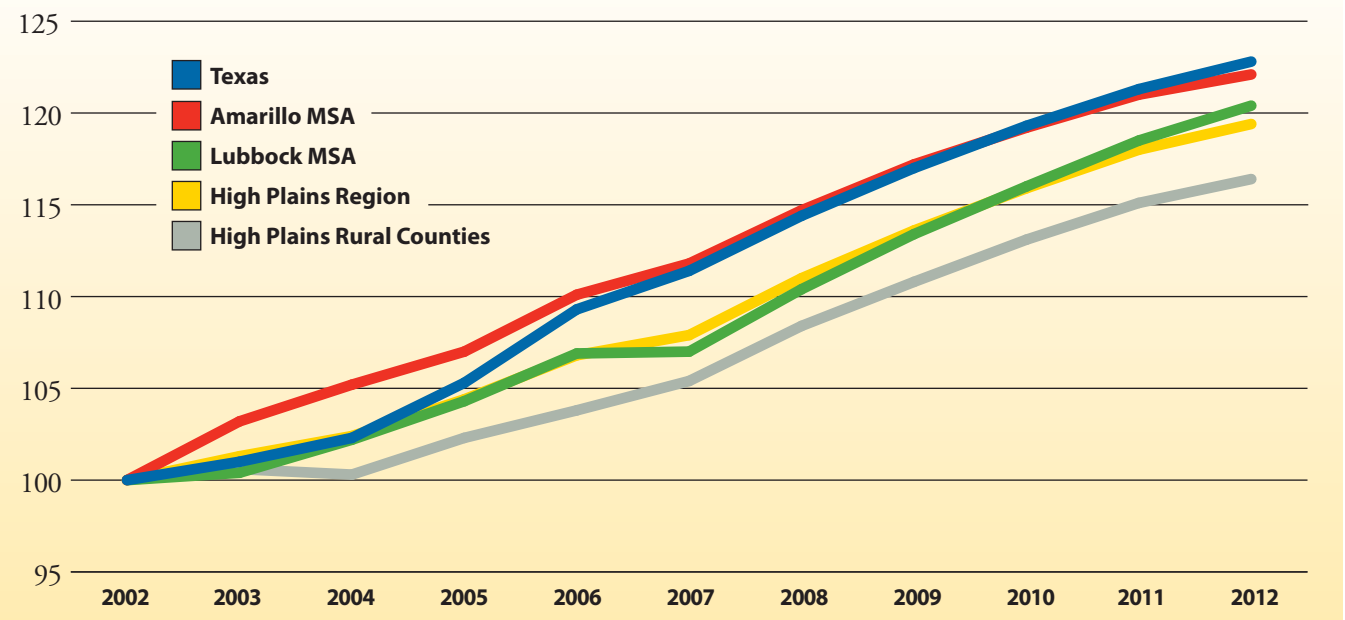
Exhibit 2 illustrates recent and expected employment growth for the High Plains region, and contrasts it with the state as a whole. These trend lines represent growth indices based on a value of 100 for 2002 annual employment.

PHOTO: Himar Cheese Company

Hilmar Cheese Company in Dalhart, Texas

Exhibit 2

High Plains Region: Employment Indicies, 2002-2012



Source: Economic Modeling Specialists Inc.

As the exhibit indicates, the Amarillo metro area will create jobs fastest through 2012 (22.1 percent), equalling statewide job growth (22.8 percent). The region as a whole (19.5 percent) will lag slightly behind state job growth, as will the Lubbock area (20.4 percent). The rural portions of the High Plains area will create jobs more slowly than either the state average or the region's urban areas (16.4 percent).

Exhibit 3 presents High Plains employment growth indices for 10 broad industry sectors, again assuming a value of 100 for 2002. Six industry sectors are growing more rapidly than the overall regional average (19.5 percent) and should remain relatively solid sources of employment growth through 2012; these include the construction (24.0 percent), professional and business services (36.1 percent), financial activities (34.4 percent), education and health services (27.8 percent), leisure and hospitality (20.3 percent) and government (19.8 percent). Note that three of these four industries are important components of the service sector.

Two of the region's industries, the natural resources sector and manufacturing, will fall short of overall regional employment growth. In these cases, however, a focus on employment as a measure of economic change understates their true outlook. Both industries incorporate technological and productivity-improving changes in their day-to-day operations. As such, their slow employment growth in part reflects productivity gains. The value of production in these sectors is rising much more quickly than their employment trends may indicate.

Economic Structure

A region's economic trends reflect its underlying economic structure. This structure, in turn, is a result of the region's competitive strengths in state, national and international marketplaces. Sometimes the underlying structure is a result of long-term factors and at other times it reflects more recent competitive strengths.

One method for revealing a region's longer-term competitive strengths is to examine *location quotients* for its industries. An industry's location quotient simply compares the share of a region's economy attributable to an industry to the share that same industry accounts for in the nation's economy. This comparison can be made based on employment shares or other economic factors.

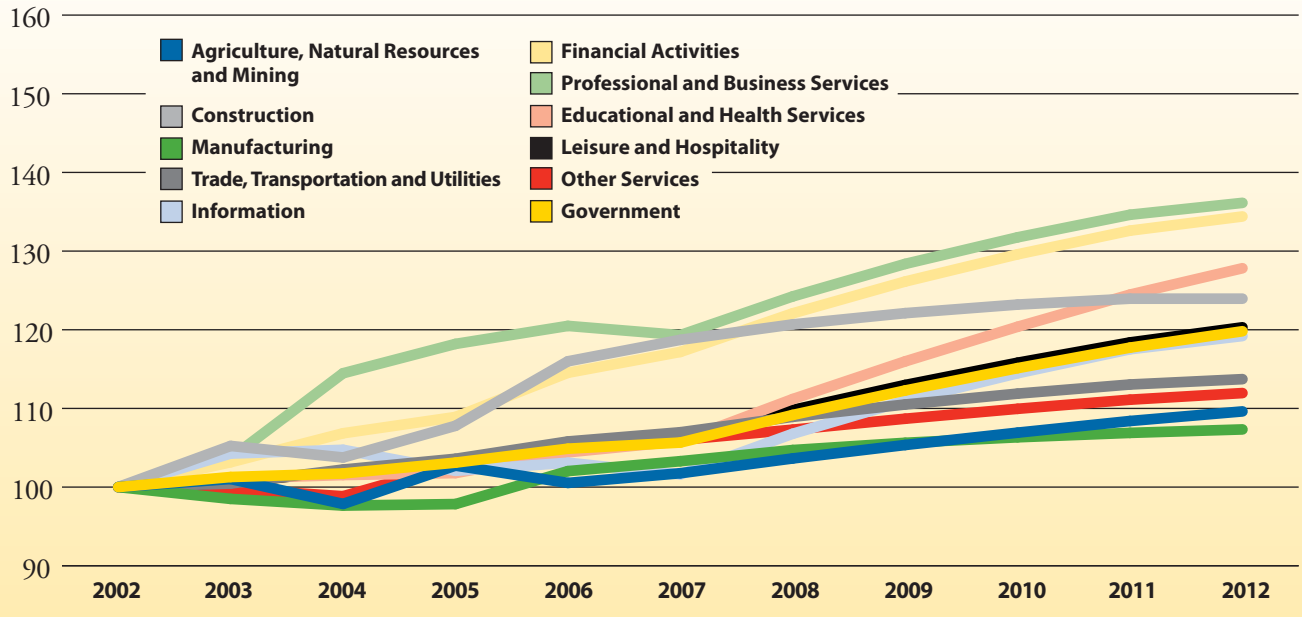
In essence, the share an industry accounts for in the national economy is seen as the "norm" for that industry, so comparing that norm with the share for a regional economy indicates whether that region tends to have "a lot" or "a little" of a particular industry.

Typically, a region will contain "a lot" of industries for which it has some natural or developed competitive advantage, based for instance on a local abundance of a particular resource, climate, an advantageous natural feature (such as proximity to a port, for instance), labor skills or some other factor. **Exhibit 4** presents the 50 industries with the highest location quotients, based on employment, in the High Plains region in 2007. Not surprisingly, the list contains many industries linked to agriculture and the oil and gas industry.

In 2007, the farm product warehousing and storage industry had the region's highest location quotient, at 20.96, meaning that this in-

Exhibit 3

High Plains Region: Employment by Industry Sector, 2002-2012



Source: Economic Modeling Specialists Inc.

Exhibit 4

Industry Location Quotients

Agriculture

NAICS Code*	Description	2007 Jobs	2007 National LQ
49313	Farm product warehousing and storage	588	20.96
31161	Animal slaughtering and processing	11,975	8.66
42459	Other farm product raw material merch. whls.	225	8.03
31121	Flour milling and malt manufacturing	369	7.48
31321	Broadwoven fabric mills	714	5.64
42452	Livestock merchant wholesalers	333	5.39
11511	Support activities for crop production	7,552	5.20
31611	Leather and hide tanning and finishing	97	4.80
42382	Farm and garden equip. merchant wholesalers	1,328	4.66
42451	Grain and field bean merchant wholesalers	574	4.64
11521	Support activities for animal production	1,018	4.55
31183	Tortilla manufacturing	212	4.27
42491	Farm supplies merchant wholesalers	1,217	3.97
11A00	Crop and animal production	27,400	3.46
31111	Animal food manufacturing	469	3.29
31122	Starch and vegetable oil manufacturing	227	2.97
33311	Agricultural implement manufacturing	592	2.74
31131	Sugar manufacturing	98	2.64
32531	Fertilizer manufacturing	147	2.25
31699	Other leather product manufacturing	100	2.15

Oil and Gas

NAICS Code*	Description	2007 Jobs	2007 National LQ
21111	Oil and gas extraction	9,685	9.32
21311	Support activities for mining	7,004	8.48
48611	Pipeline transportation of crude oil	136	6.48
32411	Petroleum refineries	1,127	5.73
33313	Mining and oil and gas field machinery mfg.	878	4.57
23712	Oil and gas pipeline construction	1,188	4.51
32511	Petrochemical manufacturing	251	3.25
42471	Petroleum bulk stations and terminals	268	2.89
48621	Pipeline transportation of natural gas	163	2.24
22121	Natural gas distribution	628	2.08
42472	Other petroleum merchant wholesalers	396	2.02

Other

NAICS Code*	Description	2007 Jobs	2007 National LQ
33141	Other nonferrous metal production	539	18.77
33651	Railroad rolling stock manufacturing	597	7.54
33299	All other fabricated metal product mfg.	3,298	6.04

Exhibit 4 (cont.)

Industry Location Quotients

NAICS Code*	Description	2007 Jobs	2007 National LQ
52592	Trusts, estates, and agency accounts	529	5.75
52591	Open-end investment funds	993	5.70
52391	Miscellaneous intermediation	1,510	4.23
42441	General line grocery merchant wholesalers	2,429	3.77
51721	Wireless telecommunications carriers	2,295	3.60
32512	Industrial gas manufacturing	153	3.04
48211	Rail transportation	1,827	2.49
23819	Other building exterior contractors	487	2.36
51521	Cable and other subscription programming	662	2.31
23621	Industrial building construction	1,291	2.29
33242	Metal tank, heavy gauge, manufacturing	191	2.23
51223	Music publishers	53	2.23
52314	Commodity contracts brokerage	187	2.21
32518	Other basic inorganic chemical manufacturing	240	2.07
32731	Cement manufacturing	100	2.07
32721	Glass and glass product manufacturing	605	2.06

*North American Industry Classification System
Source: Economic Modeling Specialists Inc.

dustry's share of regional employment is 20.96 times greater than its share of the nation's work force. Nineteen other agriculturally linked industries in the region rank among the top 50 based on location quotients, underlining the High Plains' dependence on agriculture.

The other clear structural pattern revealed in these location quotients is the oil and gas industry's importance in the region. Eleven of the region's top 50 industries are directly linked to oil and gas, either through drilling and exploration, production and transportation or processing.

The remaining 19 of these 50 industries are varied but do reflect some common themes. Transportation-linked industries reflect the region's long-established role as a transshipment center where major north-south routes cross major east-west routes. Some industries came into being and thrived on funding from either the oil and gas industry or agriculture.

Most Competitive Industries

While the location quotient is a useful way to examine the underlying structure of a region's economy, it does not necessarily reflect the sometimes more recent and always more dynamic trends revealed through employment changes.

A region can display some competitive advantage in industries based on the change in the industry's presence in the region, rather than its relative size in the total employment mix. And a region can maintain a strong competitive advantage in a particular industry even when its presence in the region, in terms of its share of total employment, is declining.

Cheese Plant Bringing Jobs to Dalhart

Dalhart's Hilmar Cheese plant is bringing jobs and income to the High Plains region. The Hilmar Cheese Company has been producing cheese at its facility in California since 1985.[1] The $190 million Dalhart facility broke ground in March 2006, and began production in fall 2007. The facility employs 120 people at its 200,000-square-foot facility and can produce up to 500,000 pounds of cheese per day, using 250,000 gallons of milk. The Hilmar facility will produce cheddar, Colby and Monterey Jack cheeses, as well as whey protein concentrate. The cheese is produced in 40-pound blocks, which is shipped to processing facilities and wholesale customers. The facility received nearly $45 million in grants, tax credits and abatements from local and state economic development groups and grant programs.[2]

One method for uncovering the competitive dynamics of a regional economy is *shift-share analysis*. In this analysis, the *change* in an industry's presence in a region is divided into three components: that attributable to the industry's growth or decline above or below the national growth trend (the industry-mix effect); the portion attributable to the overall growth or decline in the nation's economy (the national growth effect); and that attributable to the region's competitiveness as a site for the industry (the regional competitiveness effect).

Exhibit 5 includes 50 industries in the High Plains region ranked by their competitive effect; it includes the other components of growth as well.

The first column of **Exhibit 5** indicates that, for example, the High Plain's general warehousing and storage industry added a total a 1,253 jobs from 2002 to 2007. Based on the level of employment in this sector in the High Plains in 2002 and the rate of growth of the nation's economy, this industry in the High Plains should have added only 6 jobs. But, since the general warehousing and storage industry nationally grew at a faster rate then all industries in the nation, in the High Plains another 16 jobs added during this time for a total expected job gain of 21. Since the job gain in the region actually was 1,253 and we can only attribute a gain of 21 to other sources, this implies that the competitive advantage of the High Plains region for this industry helped to "generate" the remaining job gain of 1,232.

With a little understanding of both regional and national growth trends, the reasons for some industries' appearance on this list become a little more apparent. Even though

Cheese Processor Comes to Amarillo

Pacific Cheese Company will become one of the Hilmar Cheese Company's largest clients when operations begin in one to two years.[3] The Pacific Cheese Company recently expanded its plans to build a facility to process cheese manufactured at the Hilmar plant from 40,000 square feet to 90,000 square feet. Pacific Cheese plans to build its $15.3 million facility just east of Amarillo. Planned employment had been 70 people, but will likely grow due to the planned expansion. The facility will shred the 40-pound blocks manufactured at Hilmar into 5-pound bags that will be sold to the food service industry. The facility received an incentive package from the Amarillo Economic Development Corporation valued at more than $15 million, with much of this set to be repaid by Pacific Cheese over a period of 20 years.[4]

Exhibit 5

Most Competitive Industries

Rank	NAICS Code*	Description	Job Change 2002-2007	Industry Effect	National Growth Effect	Expected Change	Competitive Effect
1	45211	Department stores	1,262	-407	236	-171	1,433
2	49311	General warehousing and storage	1,253	16	6	21	1,232
3	31161	Animal slaughtering and processing	837	-1,207	915	-292	1,129
4	55111	Management of companies and enterprises	1,074	-38	152	114	960
5	56111	Office administrative services	1,007	234	59	293	714
6	51711	Wired telecommunications carriers	39	-799	216	-583	622
7	54161	Management consulting services	854	159	100	259	595
8	56172	Janitorial services	973	119	301	420	552
9	52592	Trusts, estates, and agency accounts	517	7	1	8	509
10	49211	Couriers	561	11	57	67	494
11	21311	Support activities for mining	2,906	2,094	337	2,431	475
12	23621	Industrial building construction	427	-117	71	-46	473
13	72111	Hotels and motels, except casino hotels	594	-96	225	129	465
14	31321	Broadwoven fabric mills	188	-303	43	-259	447
15	62111	Offices of physicians	952	74	449	523	429
16	32721	Glass and glass product manufacturing	381	-55	18	-37	418
17	72241	Drinking places, alcoholic beverages	337	-175	97	-78	415
18	52393	Investment advice	561	113	36	150	412
19	52392	Portfolio management	540	52	85	137	403
20	45439	Other direct selling establishments	1,221	560	288	848	373
21	33651	Railroad rolling stock manufacturing	413	38	15	53	360
22	42399	All other durable goods merchant wholesalers	440	58	27	85	355
23	48211	Rail transportation	390	-46	118	72	318
24	23712	Oil and gas pipeline construction	454	76	60	136	318
25	52591	Open-end investment funds	303	-61	57	-4	307
26	53121	Offices of real estate agents and brokers	1,339	884	165	1,050	289

Exhibit 5 (cont.)

Most Competitive Industries

Rank	NAICS Code*	Description	Job Change 2002-2007	Industry Effect	National Growth Effect	Expected Change	Competitive Effect
27	33441	Semiconductor and electronic component manufacturing	239	-46	18	-27	267
28	56173	Landscaping services	667	269	132	401	265
29	23812	Steel and precast concrete contractors	318	32	24	56	262
30	52429	Other insurance related activities	437	70	111	181	256
31	62231	Other hospitals	252	3	2	4	247
32	33313	Mining and oil and gas field machinery manufacturing	349	58	43	101	247
33	52412	Direct insurers, except life and health	238	-68	73	5	233
34	23832	Painting and wall covering contractors	467	151	92	243	224
35	56149	Other business support services	266	11	31	42	224
36	11521	Support activities for animal production	24	-281	82	-200	223
37	51521	Cable and other subscription programming	243	-9	34	26	217
38	31111	Animal food manufacturing	208	-25	21	-3	211
39	53112	Lessors of nonresidential buildings	402	124	74	198	205
40	81411	Private households	2,040	1,340	495	1,836	204
41	23819	Other building exterior contractors	304	92	15	107	198
42	52211	Commercial banking	481	-112	397	285	196
43	62441	Child day care services	345	-183	333	150	195
44	48423	Other specialized trucking, long-distance	247	26	32	58	189
45	42383	Industrial machinery merchant wholesalers	183	-91	94	3	181
46	44812	Women's clothing stores	253	37	43	80	173
47	44814	Family clothing stores	387	131	86	216	171
48	44811	Men's clothing stores	172	-3	7	4	168
49	42452	Livestock merchant wholesalers	150	-28	15	-12	162
50	49313	Farm product warehousing and storage	192	0	33	32	160

*North American Industry Classification System
Note: Numbers may not total due to rounding.
Source: Economic Modeling Specialists Inc.

population growth in the High Plains region is not excessive by Texas standards, it is strong in comparison to the U.S. as a whole. This will tend to create a competitive shift toward any industry that grows with the population, such as construction, health care and even local government, because of the increased need for educational and other services.

This population-driven competitive shift is well illustrated in the growth of department store employment (ranked 1st). Between 2002 and 2007, department stores in the region added 1,262 jobs. Based solely on national growth trends, the region should have added only 236 of these jobs. But nationwide employment in the department store industry actually declined from 2002 to 2007. So, based on industry trends, the High Plains region should have seen an actual decline in department store employment of 407 jobs, for an estimated overall loss of 171 jobs in the region based solely on national and industry trends. Since the region posted an increase in jobs, the competitive shift effect in this industry is actually substantially larger than the observed job gain.

Exhibit 5 also illustrates the High Plains region's shift to a service-dominated economy. Many of the region's most highly competitive industries provide services either to businesses or to consumers. This shift to services in part reflects stronger population growth in this region than the U.S.

Finally, the exhibit notes competitive growth in the telecommunication and investment industries. This reflects growth needed to service the growing population in the Southwest as well as the growth of these industries nationwide.

Good Jobs for the Future

Given the likely industry growth and demographic changes expected in the future, what job opportunities will be available to High Plains residents?

The first consideration is that of sheer numbers. In any economy, most occupations do not offer the highest wages. Highly paid occupations are relatively few and do not exist in most occupational categories.

For the most part, the 25 occupations in the High Plains region expected to have the most openings in 2012 are somewhat low paying and do not require a degree (**Exhibit 6**). Job openings represent the sum of new jobs created plus hiring needed to replace existing workers.

Only four of the top 25 occupations (elementary, middle, secondary and post-secondary teachers) require some sort of post-secondary education, compared to 27.4 percent for all occupations. The average annual wage paid to workers in these four occupations was $63,325 in 2007, a pay level nearly twice the regional average of $32,740.

Between 2002 and 2007, department stores in the region added 1,262 jobs.

The Texas Certified Capital Company Program

The Texas Certified Capital Company (CAPCO) program is administered by the Comptroller's office and the Texas Treasury Safekeeping Trust Company. The $200 million CAPCO program fosters economic development and works to create jobs and generate tax revenue by providing premium tax credits. In 2005, the Comptroller's office approved 10 venture capital companies to become CAPCOs.[5]

The 2007 Texas Legislature approved another $200 million for the CAPCO program. A second round of allocations have just been completed with these funds. Nine CAPCOs, eight renewals and one new group, received tax credits. That brings the total funding to $400 million.

Exhibit 6

The 25 Occupations with the Most Openings

Rank	Description	2007 Jobs	2012 Jobs	Total Job Openings	Growth	Replacement	Annual Earnings
1	Cashiers, except gaming	11,905	12,452	3,578	547	3,031	$18,200
2	Retail salespersons	14,168	15,361	3,374	1,193	2,181	$22,940
3	Waiters and waitresses	7,484	8,539	3,088	1,055	2,033	$14,660
4	Customer service representatives	7,732	9,489	2,834	1,757	1,077	$27,120
5	Elementary school teachers, except special education	9,183	10,653	2,473	1,470	1,003	$54,200
6	Registered nurses	7,728	9,373	2,283	1,645	638	$52,480
7	Combined food preparation and serving workers, including fast food	9,251	10,561	2,187	1,310	877	$14,580
8	Personal and home care aides	5,447	6,906	1,920	1,459	461	$13,420
9	Truck drivers, heavy and tractor-trailer	10,123	11,096	1,871	973	898	$31,380
10	Middle school teachers, except special and vocational education	3,782	5,223	1,854	1,441	413	$60,660
11	Janitors and cleaners, except maids and housekeeping cleaners	9,071	10,008	1,806	937	869	$13,940
12	Office clerks, general	9,133	10,055	1,760	922	838	$23,260
13	Slaughterers and meat packers	6,179	6,885	1,684	706	978	$18,620
14	Postsecondary teachers	5,292	6,448	1,598	1,156	442	$80,360
15	Maids and housekeeping cleaners	5,684	6,608	1,459	924	535	$13,280
16	Bookkeeping, accounting, and auditing clerks	8,892	9,648	1,452	756	696	$26,640
17	Child care workers	5,362	6,022	1,430	660	770	$8,440
18	Licensed practical and licensed vocational nurses	4,249	5,091	1,421	842	579	$32,500
19	Farmworkers and laborers, crop, nursery, and greenhouse	4,856	5,566	1,399	710	689	$13,440
20	Nursing aides, orderlies, and attendants	4,903	6,037	1,353	1,134	219	$20,060
21	Laborers and freight, stock, and material movers, hand	6,683	6,955	1,342	272	1,070	$24,140
22	Secondary school teachers, except special and vocational education	3,805	4,440	1,201	635	566	$58,080
23	General and operations managers	7,393	7,658	1,156	265	891	$69,580
24	Teacher assistants	4,939	5,684	1,147	745	402	$24,780
25	Real estate sales agents	3,865	4,690	1,134	825	309	$29,440

Source: Economic Modeling Specialists Inc.

Joint Effort Brings Helicopter Factory to Amarillo

In 1998, Bell Helicopter announced its decision to build a Tiltrotor helicopter factory in Amarillo. Several organizations worked together to encourage Bell to build in the area. The Amarillo Economic Development Corporation and the city of Amarillo assembled a package of financial incentives; Amarillo College developed a curriculum and training program for persons interested in working at Bell; and Atmos Energy, Xcel Energy and other companies provided telecommunications improvements and services and other additions to the area's infrastructure.

At this writing, Bell plans to double production at the Amarillo plant. By 2009, Bell expects it to employ more than 1,700 people, making the company one of the region's largest employers.[6]

A list of future "good" jobs, those with above average wages, however, presents a quite different picture. **Exhibit 7** presents occupations that are expected to see at least 77 job openings in the region from 2007 to 2012 and that pay above-average wages. The exhibit also includes the expected educational requirements for each of these occupations.

The average annual (unweighted) pay of these 77 "good" occupations is $52,595 — 60.6 percent higher than the average for all occupations. Forty of these occupations (51.9 percent) require post-secondary education, as do 75 percent of the occupations earning $45,000 or more annually. Clearly, education and earnings will go hand in hand in the High Plains region's job market.

Comptroller Assistance

The Texas Comptroller's office provides economic development information to local governments and other groups, as well as analysis of demographics, labor force and other factors that affect local economic growth. The agency runs economic models and provides analyses that identify occupational and industry trends

Revitalization of Downtown Canadian

In the past 10 years, this Hemphill County town of about 2,500 has seen major revitalization efforts. With help from the local economic development council, state and federal grants and private donations, downtown Canadian has been restored, adding 180 jobs and increasing tax revenues. Salem Abraham, a Canadian native and owner of the Abraham Trading Company (ATC) in downtown Canadian, began this trend by buying and renovating the Palace Theatre. This led to many other buildings being renovated and occupied by local businesses. Ecotourism also has emerged, with tourists coming to enjoy outdoor activities such as bird watching, kayaking, fishing, hiking and swimming.[7]

ATC, located in the Moody Building on Main Street, employs 11 people in a 10,000-square-foot office. Organized in 1990, ATC conducts financial research and provides professional money management consultation services.[8]

Exhibit 7

"Good Jobs" for the High Plains Region's Future

Description	2007 Jobs	2012 Jobs	Job Openings	Annual Earnings	Education Level
Physicians and surgeons	1,294	1,464	287	$139,840	First professional degree
Petroleum pump system operators, refinery operators, and gaugers	768	818	208	97,540	Long-term on-the-job training
Pharmacists	658	767	166	92,220	First professional degree
Petroleum engineers	589	652	139	87,460	Bachelor's degree
Geoscientists, except hydrologists and geographers	510	582	138	82,660	Master's degree
Postsecondary teachers	5,292	6,448	1,598	80,360	Doctoral degree
Education administrators, elementary and secondary school	818	918	214	77,820	Degree plus work experience
Medical and health services managers	670	786	179	71,140	Degree plus work experience
Special education teachers, preschool, kindergarten, and elementary school	512	585	130	70,520	Bachelor's degree
General and operations managers	7,393	7,658	1,156	69,580	Degree plus work experience
Chemical plant and system operators	378	447	150	68,880	Long-term on-the-job training
Geological and petroleum technicians	305	349	102	68,720	Associate's degree
Sales representatives, wholesale and manufacturing, technical and scientific products	745	800	137	67,440	Moderate-term on-the-job training
Lawyers	1,068	1,184	217	67,300	First professional degree
Physical therapists	473	576	131	64,300	Master's degree
Loan officers	850	941	137	63,240	Bachelor's degree
Administrative services managers	589	646	135	61,620	Degree plus work experience
Flight attendants	215	315	119	61,580	Long-term on-the-job training
Sales managers	786	861	162	60,940	Degree plus work experience
Middle school teachers, except special and vocational education	3,782	5,223	1,854	60,660	Bachelor's degree
Financial managers	1,273	1,433	253	59,800	Degree plus work experience
Secondary school teachers, except special and vocational education	3,805	4,440	1,201	58,080	Bachelor's degree
Computer programmers	715	728	102	55,900	Bachelor's degree
Network systems and data communications analysts	344	436	127	54,940	Bachelor's degree
Electrical power-line installers and repairers	502	534	111	54,600	Long-term on-the-job training
Elementary school teachers, except special education	9,183	10,653	2,473	54,200	Bachelor's degree
First-line supervisors/managers of production and operating workers	2,551	2,676	400	53,920	Work experience in a related field
Network and computer systems administrators	664	767	179	53,700	Bachelor's degree
Kindergarten teachers, except special education	721	820	159	53,320	Bachelor's degree
Securities, commodities, and financial services sales agents	964	1,163	323	53,180	Bachelor's degree
Wellhead pumpers	883	850	195	52,820	Moderate-term on-the-job training
Registered nurses	7,728	9,373	2,283	52,480	Associate's degree
Chief executives	1,707	1,802	329	52,320	Degree plus work experience
Business operation specialists, all other	1,295	1,503	277	51,740	Bachelor's degree
Computer systems analysts	626	730	187	51,640	Bachelor's degree
First-line supervisors/managers of mechanics, installers, and repairers	1,647	1,753	299	50,120	Work experience in a related field
Medical and clinical laboratory technologists	464	553	124	48,980	Bachelor's degree

Exhibit 7 (cont.)

"Good Jobs" for the High Plains Region's Future

Description	2007 Jobs	2012 Jobs	Job Openings	Annual Earnings	Education Level
Medical scientists, except epidemiologists	368	441	130	48,960	Doctoral degree
Radiologic technologists and technicians	607	720	154	48,400	Associate's degree
Team assemblers	1,130	1,199	186	48,280	Moderate-term on-the-job training
First-line supervisors/managers of non-retail sales workers	1,006	1,117	183	47,560	Work experience in a related field
Industrial machinery mechanics	1,403	1,568	282	47,260	Long-term on-the-job training
Management analysts	1,562	1,806	377	46,480	Degree plus work experience
Educational, vocational, and school counselors	930	1,037	199	45,900	Master's degree
Sales representatives, wholesale and manufacturing, except technical and scientific products	4,049	4,325	723	45,320	Moderate-term on-the-job training
Postal service mail carriers	790	804	130	44,260	Short-term on-the-job training
Accountants and auditors	4,482	4,863	775	43,900	Bachelor's degree
First-line supervisors/managers of transportation and material-moving machine and vehicle operators	996	1,061	167	43,840	Work experience in a related field
Inspectors, testers, sorters, samplers, and weighers	1,275	1,265	129	43,700	Moderate-term on-the-job training
Production, planning, and expediting clerks	550	588	113	43,380	Short-term on-the-job training
First-line supervisors/managers of construction trades and extraction workers	2,940	3,088	353	42,980	Work experience in a related field
Construction managers	2,087	2,179	254	42,740	Bachelor's degree
Managers, all other	925	990	157	42,560	Work experience in a related field
Instructional coordinators	627	735	151	42,300	Master's degree
Sales representatives, services, all other	1,212	1,392	323	41,080	Moderate-term on-the-job training
Automotive body and related repairers	578	633	124	41,000	Long-term on-the-job training
Financial analysts	824	1,056	255	39,400	Bachelor's degree
Police and sheriff's patrol officers	2,086	2,416	609	39,020	Long-term on-the-job training
Meat, poultry, and fish cutters and trimmers	495	535	118	39,000	Short-term on-the-job training
Food service managers	631	696	139	38,900	Work experience in a related field
First-line supervisors/managers of office and administrative support workers	4,830	5,171	839	38,560	Work experience in a related field
Roustabouts, oil and gas	1,880	1,951	380	38,500	Moderate-term on-the-job training
Welders, cutters, solderers, and brazers	1,710	1,858	329	38,340	Long-term on-the-job training
Computer support specialists	1,055	1,189	297	38,140	Associate's degree
Automotive service technicians and mechanics	2,161	2,332	388	37,860	Postsecondary vocational award
Mobile heavy equipment mechanics, except engines	691	757	133	37,420	Postsecondary vocational award
Medical secretaries	948	1,056	183	37,400	Postsecondary vocational award
Fire fighters	1,003	1,161	341	37,020	Long-term on-the-job training
Electricians	1,980	2,136	411	36,820	Long-term on-the-job training
Plumbers, pipefitters, and steamfitters	1,161	1,273	232	36,460	Long-term on-the-job training
Medical assistants	1,121	1,370	319	36,160	Moderate-term on-the-job training
Carpenters	3,464	3,609	379	36,000	Long-term on-the-job training
Medical records and health information technicians	432	504	131	34,280	Associate's degree
Mixing and blending machine setters, operators, and tenders	893	971	174	34,240	Moderate-term on-the-job training
Bus and truck mechanics and diesel engine specialists	1,102	1,177	195	34,180	Postsecondary vocational award
Insurance sales agents	3,074	3,499	759	33,860	Bachelor's degree
Dispatchers, except police, fire, and ambulance	728	751	115	32,760	Moderate-term on-the-job training

Source: Economic Modeling Specialists Inc.

Going Shopping

Businesses in the High Plains region had more than $36 billion in gross sales in 2006, the most recent data available. Of that amount, about 19.5 percent or more than $7 billion was subject to state and local sales taxes. State sales taxes levied in the region amounted to $440 million in 2006.

Gross Sales and Sales Tax, High Plains, 2006

County	Gross Sales	Amount Subject to Tax	Sales Tax
Lubbock	$9,705,886,060	$2,681,860,435	$167,616,277
Moore	7,915,227,483	87,953,061	5,497,066
Potter	6,814,497,797	1,905,858,606	119,116,163
Hale	2,727,289,221	145,344,311	9,084,019
Randall	2,124,003,856	480,745,328	30,046,583
Other	6,770,378,642	1,740,990,473	108,811,905
TOTAL	**$36,057,283,059**	**$7,042,752,214**	**$440,172,013**

Source: Texas Comptroller of Public Accounts.

The High Plains region had more than 40,000 retail employees in 2005 and 2006, with total wages totaling nearly $900,000 annually. Lubbock County had the highest number of retail jobs, followed by Potter and Randall counties. The annual average salary of the region's retail employees was $21,791 in 2005 and $22,037 in 2006, an increase of just over 1 percent.

Retail Employees and Wages, High Plains, 2005 and 2006

County	Employees 2005	Total Wages 2005	Employees 2006	Total Wages 2006
Lubbock	15,215	$348,040,379	15,419	$349,265,950
Potter	9,240	204,522,626	9,154	210,652,159
Randall	4,377	104,226,709	4,619	110,112,742
Hale	1,840	41,828,326	1,464	27,510,088
Gray	1,207	22,753,085	1,069	21,649,522
Other	8,446	157,348,895	8,313	163,118,866
TOTAL	**40,325**	**$878,720,020**	**40,038**	**$882,309,327**

Source: Texas Comptroller of Public Accounts.

The South Plains Mall in Lubbock is the region's largest mall, with 1.14 million square feet and more than 150 stores. The South Plains Mall has more than 10 million shopper visits each year and a trade area population of more than 273,000 people. (A trade area is the geographical area from which shoppers originate.) The mall has five anchor stores: Dillard's, JC Penney, Bealls, Sears and Mervyns.[9]

Amarillo's 900,000-square-foot Westgate Mall has more than 100 stores. The mall has a trade area of more than 235,000 people with an average household income of more than $55,500. The Westgate Mall has four anchor stores: Dillard's, Sears, JC Penney and Bealls.[10]

and their effects on the regional economy via its Texas EDGE (Economic Data for Growth and Expansion) Program.

Since August 2007, the Comptroller's office has responded to more than 150 Texas EDGE requests. Many of these came from private businesses, city and county government officials, economic development corporations and members of the media. Information requests have included demographics, economic development, economic modeling and taxes. This office also identifies business clusters and provides maps of regional infrastructure such as highways, railroads and other public facilities. For assistance, please visit www.window.state.tx.us/texasedge or e-mail texas.edge@cpa.state.tx.us

The Comptroller's office also identifies opportunities for local governments to raise funds for economic development efforts through property, sales and franchise tax revenues, exemptions and credits. It also provides information on special assessments and other opportunities related to disaster relief.

The Comptroller's Local Government Assistance and Economic Development Division provides free risk assessments to local governments. These give local officials reasonable assurance that risks to local objectives have been identified and show the controls and mitigating factors associated with each.

Finally, the Comptroller's State Energy Conservation Office (SECO) offers free preliminary energy audits for local governments. These audits provide recommendations for reducing electricity consumption by improving the efficiency of heating, air conditioning and lighting systems. SECO can help Texas reduce state and local government energy costs and promote cost-effective clean energy technologies. See Appendix for a list of federal and state assistance programs.

Agriculture is King in Deaf Smith County

Deaf Smith is home to over 550,000 head of cattle.[11] And the biggest economic changes that have occurred in Hereford in recent years have come from dairies, biofuels and related service industries. Today, 13 dairies call this West Texas community home. Attracted by lower land prices and high quality of life, new generations of young dairy owners and their children have sold their California and Idaho land and resettled in West Texas. With an average of 5,000 head of cattle and 50 employees per dairy, this industry provides more than 650 jobs in the region.[12]

Spinoff industries have followed the dairy companies to Hereford. The city is home to an animal feed supplement manufacturer, the 7,000-head Tul's Cattle Company ranch, the Cavness meat packing plant and an oilfield and feed mill equipment manufacturer. The equipment manufacturer, Ferrall Ross, originally promised the community 12 to 15 jobs but now employs more than 100 workers. A local milk hauling company has increased its truck count from six to 100 units in less than four years.[13]

The city of Hereford has found a beneficial use for the waste these cows leave behind — fueling an ethanol plant with cow manure. Panda Ethanol Inc. began building the plant in Hereford in 2006. Local feedlot owners agreed to give the ethanol plant manure for free as long as the plant owners collect it.

Panda Ethanol will extract methane from the manure and burn it to generate steam that will be used to process corn into ethanol. Hereford is using funds from the Texas Department of Agriculture to improve its water and wastewater system capacity for the ethanol plant's uses. Panda Ethanol predicts its plant will begin operating in early 2008. The facility will create 61 new jobs.[14]

Industry Profile – Agriculture

Economic regions often are supported by industries for which they have a competitive advantage, due to an abundance of a particular resource, certain climate conditions or special labor skills. Today, as it has been for decades, much of the High Plains economy is driven by agriculture.

Cattle, cotton and grain crops dominate the region's agriculture and account for a significant share of the state's total production. Crop and animal production provided more than 28,000 jobs in the region in 2006.[15] Farmland in the High Plains accounted for 17.5 percent of all Texas farmland in 2002. Deaf Smith and Oldham counties have the most acreage, with 964,347 and 936,390 acres respectively.

Cattle

Texas is the national leader in cattle, ranking first among states in a number of measures. Texas has more than twice as many head of cattle and calves (14 million) than Nebraska (6.7 million), the second ranked state. Likewise, Texas leads the nation in the number of cattle operations with 149,000, followed by Missouri in a distant second with 64,000. Finally, Texas ranks first in the total value of all cattle and calves with more than $11 billion at the beginning of 2007, far outpacing second place California with $6.3 billion.[16]

The High Plains, in turn, is the state's leading cattle region, with nearly a third (30.1 percent) of all cattle in the state or more than 4.2 million head in 2007.[17] If the High Plains were a state, it would have had the seventh-largest population of cattle in the U.S. in 2007 (**Exhibit 8**).[18]

In fact, the eight largest cattle counties in the state are found in the High Plains region. Deaf Smith County has the largest number of cattle and calves with 552,000 or 3.9 percent of the state's total head.[19]

Texas ranchers have seen the price paid for beef increase since 2002. The average price per pound paid for beef cattle in 2002 was $0.67. By 2006, the average price increased 31.3 percent to $0.88.[20]

Exhibit 8

Head of Cattle, 2007 (In Millions)

State	Head of Cattle	Percent of U.S.
Texas	14.0	14.4%
Nebraska	6.7	6.9
Kansas	6.4	6.6
California	5.5	5.7
Oklahoma	5.3	5.5
Missouri	4.5	4.6
High Plains	4.2	4.3

Source: U.S. Department of Agriculture.

Cotton

In 2000, cotton was the state's leading cash crop, generating $1.6 billion for farmers and a $5.2 billion impact on the economy. Texas is the nation's largest producer of cotton, and the High Plains produces the majority of the state's cotton.[21]

The region's farmers produced more than 3.5 million bales of upland cotton in 2006, or about 61.7 percent of the state total. The region also had more than half (57.6 percent) of the state's harvested acres of cotton, or nearly 2.4 million acres. Hale and Lamb counties were the region's largest cotton producers (**Exhibit 9**).[22]

Exhibit 9

Region's Largest Producers of Upland Cotton High Plains, 2006

County	Planted Acres	Harvested Acres	Produced Bales
Hale	282,400	262,100	483,000
Lamb	207,200	193,000	339,500
Hockley	261,000	212,000	279,700
Floyd	187,200	164,000	254,400
Lubbock	266,800	193,500	247,800

Source: U.S. Department of Agriculture.

Wheat

Nearly half of all Texas wheat harvested in 2006 (47.8 percent, or more than 16 million bushels) came from the High Plains. The region had 46.2 percent of all Texas harvested acres of wheat in that year. Dallam and Castro counties each produced nearly 2 million bushels of wheat, accounting for a quarter (24.8 percent) of the region's wheat crop (**Exhibit 10**).[23]

Exhibit 10

Region's Largest Producers of Wheat
High Plains, 2006

County	Planted Acres	Harvested Acres	Produced Bushels
Dallam	122,400	58,500	1,994,000
Castro	169,200	51,800	1,986,000
Ochiltree	180,300	66,500	1,419,000
Parmer	187,700	48,100	1,398,000
Hansford	223,000	54,400	1,130,000

Source: U.S. Department of Agriculture.

Corn for Grain

The High Plains region is also the state's largest producer of corn for grain. The region produced 107.4 million bushels, or 61.2 percent of the state's share in 2006. The region's 562,000 acres harvested accounted for 38.8 percent of the state total. Dallam and Hartley counties alone produced nearly a quarter (24.4 percent) of the state's corn for grain (**Exhibit 11**).[24]

Exhibit 11

Region's Largest Producers of Corn for Grain
High Plains, 2006

County	Planted Acres	Harvested Acres	Produced Bushels
Dallam	130,300	124,400	22,680,000
Hartley	110,000	96,300	20,063,000
Castro	78,600	63,200	12,819,000
Sherman	68,400	61,400	12,131,000
Moore	50,700	48,100	9,502,000

Source: U.S. Department of Agriculture.

Sorghum for Grain

High Plains farmers harvested more than 18.7 million bushels of sorghum for grain in 2006, 30.0 percent of the state total. Ochiltree County was the region's largest producer, with nearly 2 million bushels, followed by Deaf Smith County (**Exhibit 12**). In all, nearly 400,000 acres of sorghum were harvested in the region in 2006.[25]

Exhibit 12

Region's Largest Producers of Grain Sorghum
High Plains, 2006

County	Planted Acres	Harvested Acres	Produced Bushels
Ochiltree	51,800	36,200	1,974,000
Deaf Smith	85,900	44,700	1,655,000
Moore	31,200	17,850	1,435,000
Hansford	36,400	27,300	1,420,000
Carson	40,200	28,500	1,325,000

Source: U.S. Department of Agriculture.

Biofuels

The emergence of biofuels such as ethanol and biodiesel is opening new markets to the region's farmers and ranchers. Its rich resources of corn, sorghum and animal fat make the region a natural area for these emerging energy industries. **Exhibit 13** highlights ethanol and biodiesel plants in the High Plains.

The 2007 federal energy bill set a goal that the U.S. will annually produce 15.2 billion gallons of renewable fuels, including ethanol and biodiesel, by 2012, and 36 billion gallons by 2022.[26] Also, the federal government provides subsidies for ethanol and biodiesel production and consumption.

Ethanol (ethyl or grain alcohol) is a renewable fuel used to power vehicles and is made from feedstock crops such as corn, sugarcane and other materials that can be converted into sugar. Almost all of U.S. ethanol is made from corn.[27] One bushel of corn (56 pounds) can produce up to 2.8 gallons of ethanol.[28]

Many proponents are touting ethanol as a step toward national energy independence that also

Exhibit 13

High Plains Region

ETHANOL PLANTS

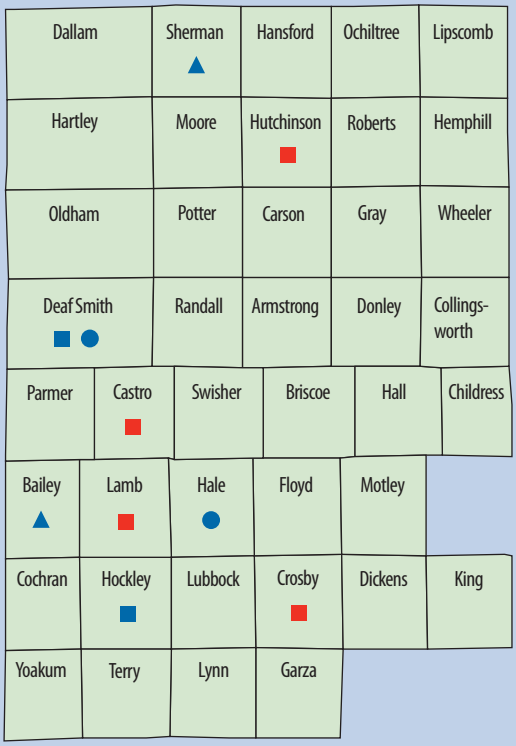
Operating Plants:
Deaf Smith County
Hockley County

Plants Under Construction:
Deaf Smith County
Hale County

Planned Plants:
Sherman County
Bailey County

BIODIESEL PLANTS

Operating Plants:
Hutchinson County
Crosby County
Castro County
Lamb County



Source: Texas Comptroller of Public Accounts.

benefits the nation's farmers and creates jobs. According to one recent estimate, a Texas ethanol plant producing 100 million gallons per year could create about 1,600 new jobs.[29]

U.S. ethanol production has increased dramatically over the past several years (**Exhibit 14**).

Ethanol has critics as well as boosters. Some argue that increased corn production for ethanol is pushing up the price of foods, animal feed and other commodities while draining precious water resources. The amount of water corn-based ethanol requires, mostly for crop irrigation, varies depending on climate, from 2,500 to 29,000 gallons of water per million Btu of energy produced. In 2002, water use at ethanol plants averaged 4.7 gallons per gallon of ethanol produced.[30]

The High Plains region is the center for this new industry in Texas. Every ethanol plant either opened or under construction in Texas is located in the High Plains region, with the first large-scale plant opening in Hereford, Texas, in January 2008.

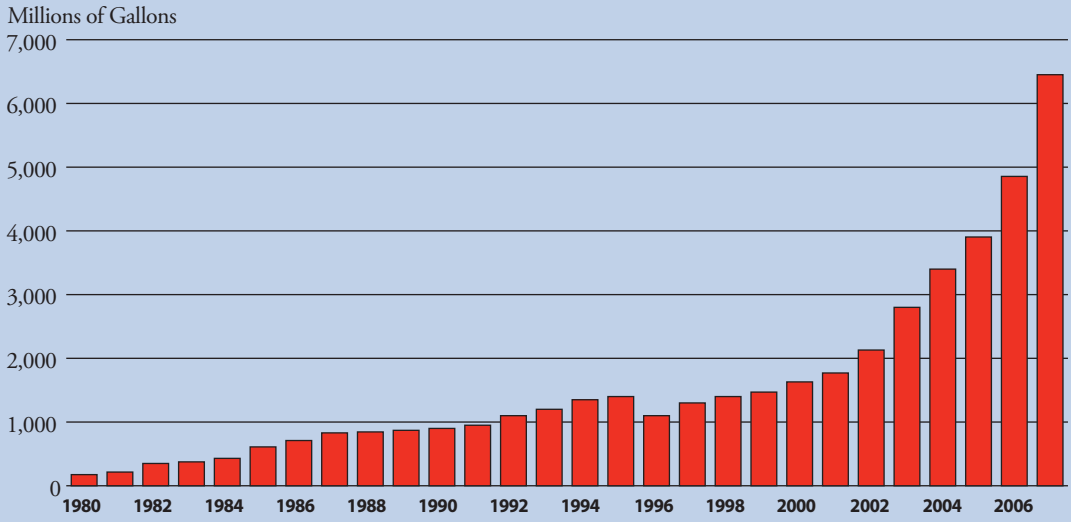
White Energy, Inc.'s Hereford ethanol plant is expected to produce 100 million gallons of ethanol annually from corn and milo. Much of this grain will come from local farmers. The byproducts of ethanol production will be used as cattle feed, partially offsetting the loss of corn feed. The plant's owners estimate that the facility will provide about 40 jobs and have an economic impact of about $100 million annually.[31]

White Energy also has a plant under construction in Plainview that the company says will produce similar amounts of ethanol and create a similar number of jobs. The plant also will provide hundreds of construction jobs.[32]

Panda Ethanol, Inc., is building an ethanol plant in Hereford and planning another for Sherman County. Each plant will produce about 115 million gallons of ethanol per year from about 40 million

Exhibit 14

U.S. Ethanol Production, 1980-2007



Sources: Texas Comptroller of Public Accounts and Renewable Fuels Association.

bushels of corn. Interestingly, Panda will gasify up to one billion pounds of cow manure annually instead of using natural gas to operate each plant. Gasifying or burning manure is a way to avoid the monetary and environmental costs of its disposal. Producers usually are not paid for manure used as fuel; for example, cattle producers are planning to supply the manure to the Hereford ethanol plant for free to avoid disposal costs. Using cattle manure to produce ethanol, which in turn produces a byproduct that can be used as cattle feed, creates a unique fuel cycle.

The Hereford plant under construction is expected to employ 61, the planned Sherman plant should also create 61 jobs.[33] Panda also has plans to build a plant in Muleshoe.

Biodiesel is another alternative fuel, used either as a blend with petroleum-based diesel or as a full substitute. The most common sources of biodiesel are plants (soybeans, peanuts, palm, sorghum and others), animal fats and recycled grease from cooking oils.

Texas is the country's largest producer of biodiesel. Of 148 commercial biodiesel production plants operating in the U.S. in August 2007, 15 were in Texas, more than in any other state.[34] The state produced 72.9 million gallons in 2007.[35]

In 2008, Tyson Foods and ConocoPhillips are partnering to produce biodiesel from beef fat. Tyson ships tallow from its Amarillo plant to a biodiesel facility in Borger. This facility is part of a strategic alliance between the two companies that is expected to produce 175 million gallons per year nationwide.[36]

Also using animal fat to produce biodiesel is Greenlight Biofuels, located in Littlefield in Lamb County. The Greenlight facility, opened in summer 2007, employs five people and can produce 5 million gallons of biodiesel per year. The plant also produces glycerin as a co-product.[37]

Brownfield Biodiesel in Ralls in Crosby County can produce 6.5 million gallons of biodiesel annually from feedstocks including canola, soybean and cottonseed. The facility also produces glycerin as a co-product that it sells to soap companies. The biodiesel itself is sold to wholesale buyers, mostly in Texas.[38]

These plants will boost the High Plains economy by providing new markets for its traditional industries. Local communities and business owners already have benefited from the construction of these plants.

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Demographics

Texas' 41-county High Plains region was home to more than an estimated 800,000 people in 2007, about 3.4 percent of the state's population. In recent years, the High Plains region has grown more slowly than the state as a whole. From 2002 to 2007, the region's population rose by an estimated 2.7 percent, while the state's grew by 9.8 percent.[1] The region's population is primarily concentrated in its two largest cities, Amarillo (population 185,525 in 2006) and Lubbock (population 212,169 in 2006).

Age

In 2007, more than half of all Texans — 52.1 percent — were aged 25 to 64. Those under the age of 25 accounted for 37.9 percent of the total population, while 10.0 percent of Texans were aged 65 and over.

The High Plains population is similar to the state as a whole. Slightly less than half of the region's residents (48.8 percent) were aged 25 to 64 in 2007. About 38.8 percent were under the age of 25, while 12.4 percent were aged 65 and over (**Exhibit 15**).[2]

While persons aged 65 and over accounted for a slightly higher percentage of the High Plains population, that group grew at a slower rate. From 2002 to 2007, the portion of the region's population aged 65 and over grew by just 0.5 percent; for the state as a whole, this population rose by 11.6 percent.

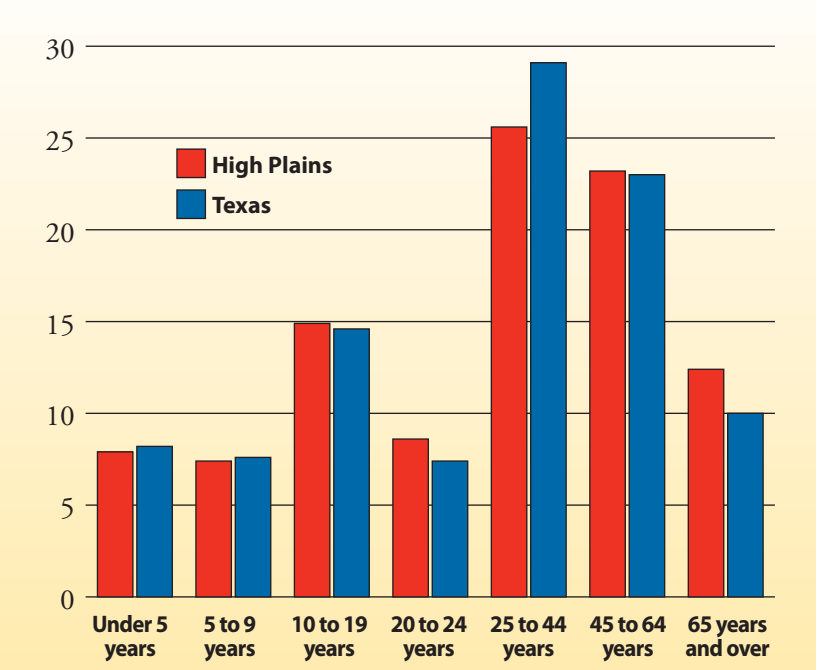
Less than half the region's residents (48.8 percent) were aged 25 to 64 in 2007.

PHOTO: City of Lubbock

Water Wise Workshop in Lubbock, Texas

Exhibit 15

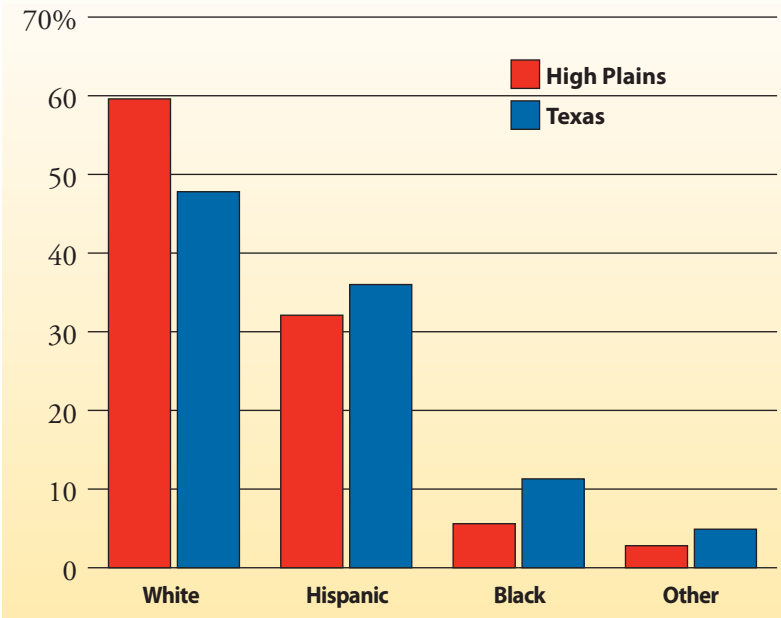
Texas and High Plains Population by Age, 2007



Source: Economic Modeling Specialists Inc.

Exhibit 16

Texas and High Plains Population by Ethnicity, 2007



Source: Economic Modeling Specialists Inc.

Ethnicity

In 2007, an estimated 47.8 percent of all Texans were White; 36 percent were Hispanic; 11.3 percent were Black; and another 4.9 percent were members of other ethnicities. In the High Plains region, 59.6 percent of residents were White; 32.0 percent were Hispanic; 5.6 percent were Black; and another 2.8 percent fell into other ethnicities (**Exhibit 16**).[3]

The region's Hispanic population is growing, but more slowly than the state's. From 2002 to 2007, the Texas Hispanic population in Texas rose by 18.9 percent, compared to 11.8 percent in the High Plains. Unlike the state, however, the number of Whites in the High Plains region declined from 2002 to 2007, by 2.2 percent.

The region has a lower concentration of Hispanics than the state as a whole, but higher than the nation. Blacks are underrepresented in the High Plains region compared both to the state and the nation.

This pattern can be illustrated by a common measure in economic and demographic analysis, the "location quotient" (LQ). A LQ is a ratio that compares the concentration of a given group (by ethnicity or age, for instance) in a location with a state or national average. A LQ of more than 1.0 indicates that the demographic category is overrepresented in the region under study, compared to the state or national average; a LQ of less than 1.0 indicates that the demographic category is underrepresented. **Exhibit 17** shows that the High Plains has a higher concentration of Hispanics when compared to the nation and a lower concentration when compared to the state.

While Hispanics make up a smaller share of the High Plains region than in the state as

a whole, they represent a young and growing portion of the population.

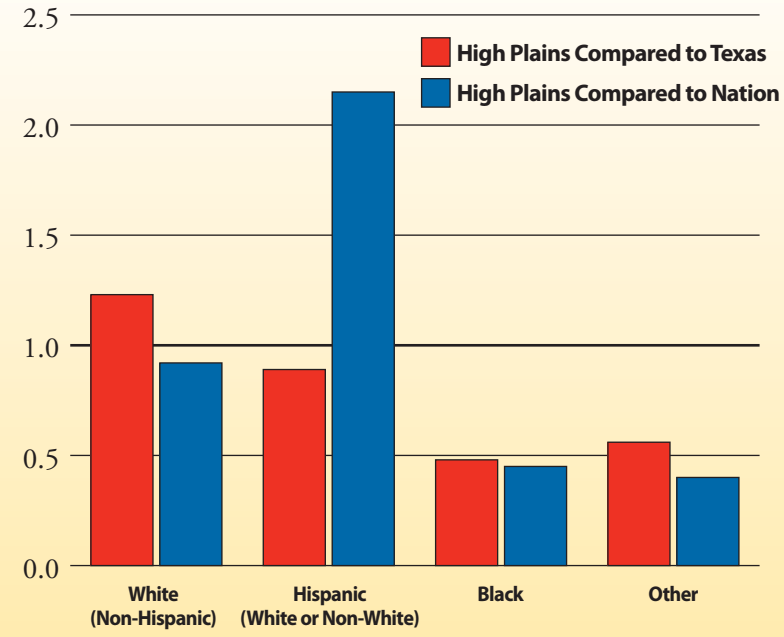
Exhibit 18 examines the region's 2007 population in five-year increments; people in these age groups were those aged five to nine, 10 to 14 and so forth. The LQs used compare the region to national averages.

In all the groups under the age of 25, the LQ for the region's Hispanics exceeded 1.0, indicating higher concentrations of younger Hispanics than the national average. At the other end of the age scale, the region had relatively fewer Hispanics in the oldest two age groups.

The 2007 location quotient for non-Hispanics, on the other hand, was greater than 1.0 for all age groups at or above 60 years of age. The region's share of non-Hispanics over the age of 70 was more than 17 percent above the national average.[4]

Exhibit 17

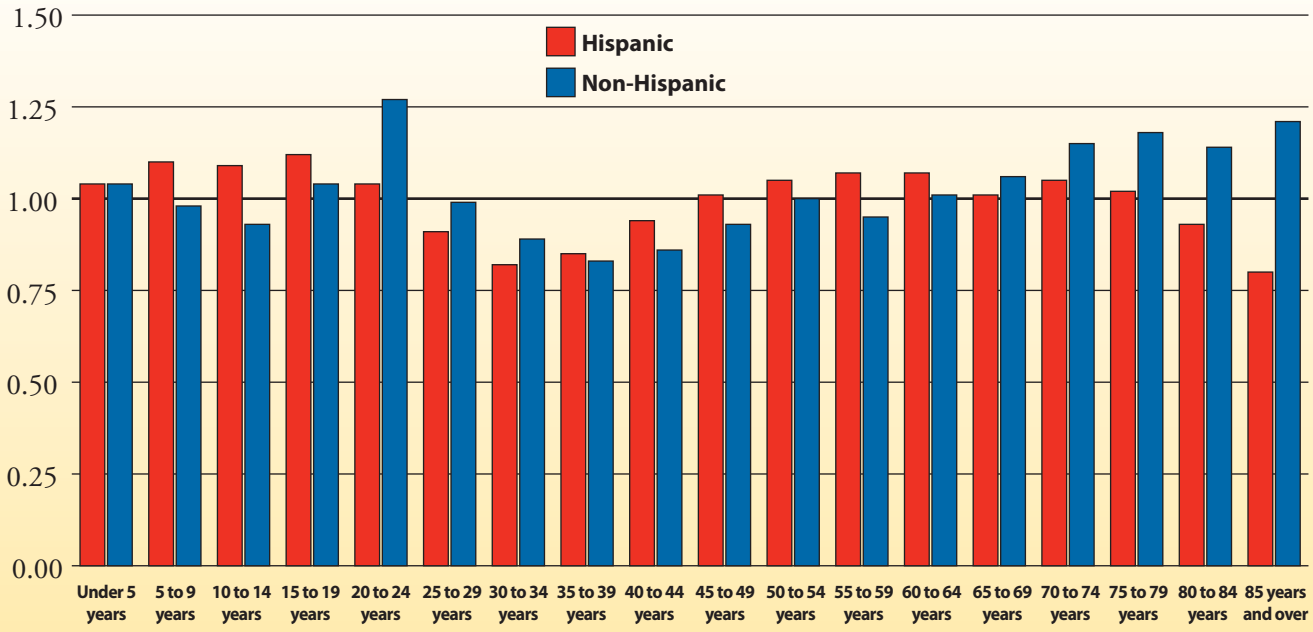
Location Quotients by Race: Comparing the High Plains to Texas and Nation, 2007



Source: Economic Modeling Specialists Inc.

Exhibit 18

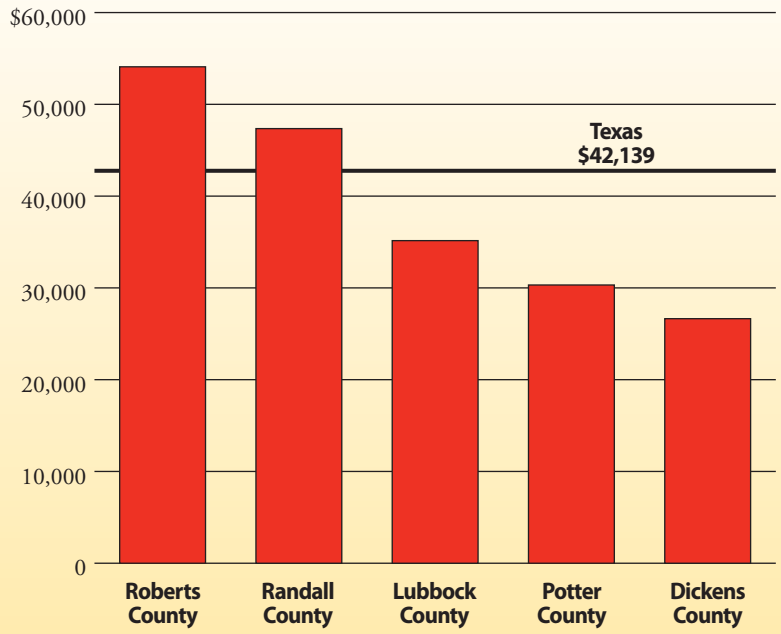
Location Quotients by Age, Hispanic vs. Non-Hispanic, 2007



Source: Economic Modeling Specialists Inc.

Exhibit 19

Median Household Income, State of Texas and Selected Counties, 2005



Source: U.S. Census Bureau.

These broad demographic trends can have important implications. It appears that the High Plains region will have a significant advantage in its readily available population of young workers in the near future. The region, however, will have to educate a relatively large number of children while facing the demands of a growing population. And while a relatively high number of older citizens can support the economy with Social Security and other retirement spending, they also put increasing pressures on the region's health care facilities.

Income

The median income for all Texas households in 2005 was $42,139.[5] Of the 41 counties in the High Plains region, Roberts County had the highest median household income at $54,091, while Dickens County had the lowest at $26,645. Lubbock County, where the city of Lubbock is located, had a 2005 median household income of $35,150. Randall and Potter counties, where Amarillo is located, had median household incomes of $47,356 and $30,316 respectively (**Exhibit 19**).[6]

Metropolitan/Nonmetropolitan

Most of the High Plains region's population resides in a metropolitan area. Of the 41 counties in the High Plains region, six are in metropolitan statistical areas (MSAs). MSAs are defined by a large population nucleus, along with adjacent communities that have a high degree of social and economic integration with that core. The Amarillo MSA includes Armstrong, Carson, Potter and Randall counties, while the Lubbock MSA includes Crosby and Lubbock counties (**Exhibit 20**).[7]

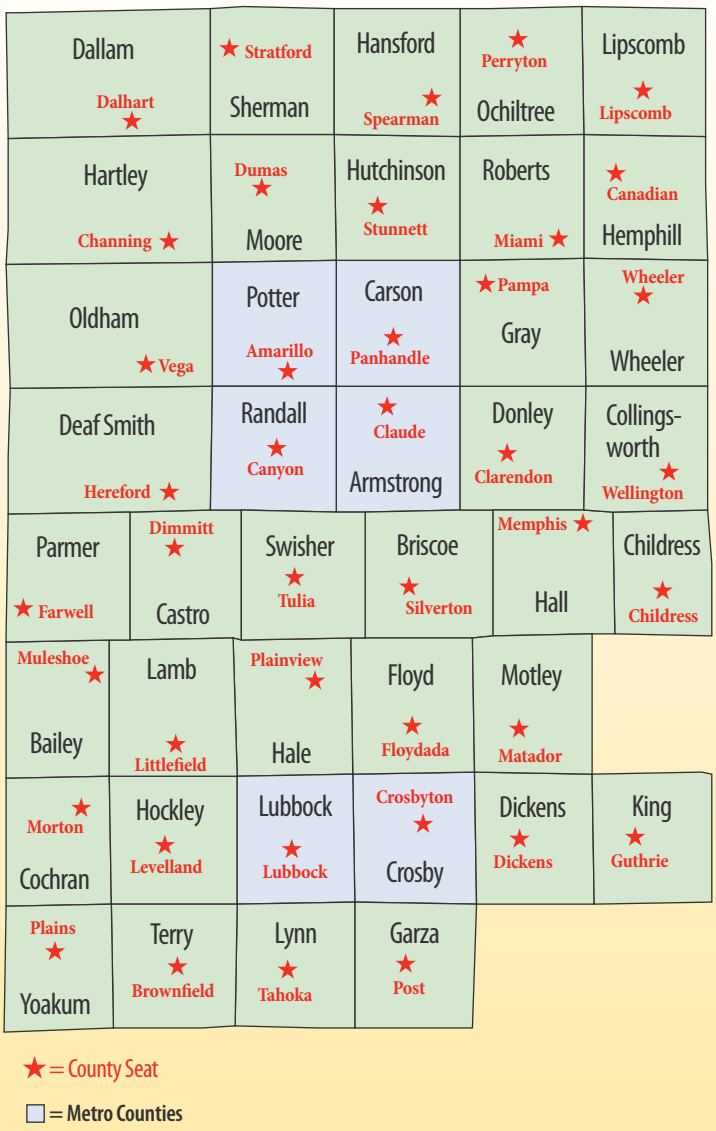
These metro counties accounted for 62.5 percent of the region's population in 2007. The state as a whole had a higher percentage of metropolitan residents; 87.0 percent of

Famous People From the High Plains

The High Plains has been the birthplace or home of many famous people throughout the years, including country music singer and songwriter Mac Davis, singer Buddy Holly, singer Natalie Maines of the Dixie Chicks, members of the band Flatlanders, actress Carolyn Jones and astronauts William Cameron McCool and Rick Husband.

Exhibit 20

High Plains Metro Counties



Source: Office of Management and Budget.

Like the rest of the state, the region's metro population is growing faster than the rest of the region.

the Texas population resided in metro areas in 2007. Like the state, however, the region's metro population is growing faster than the rest of the region. From 2002 to 2007, the region's metro county populations rose by 3.7 percent, while the nonmetro counties grew by just 1.0 percent.[8]

Educational Attainment

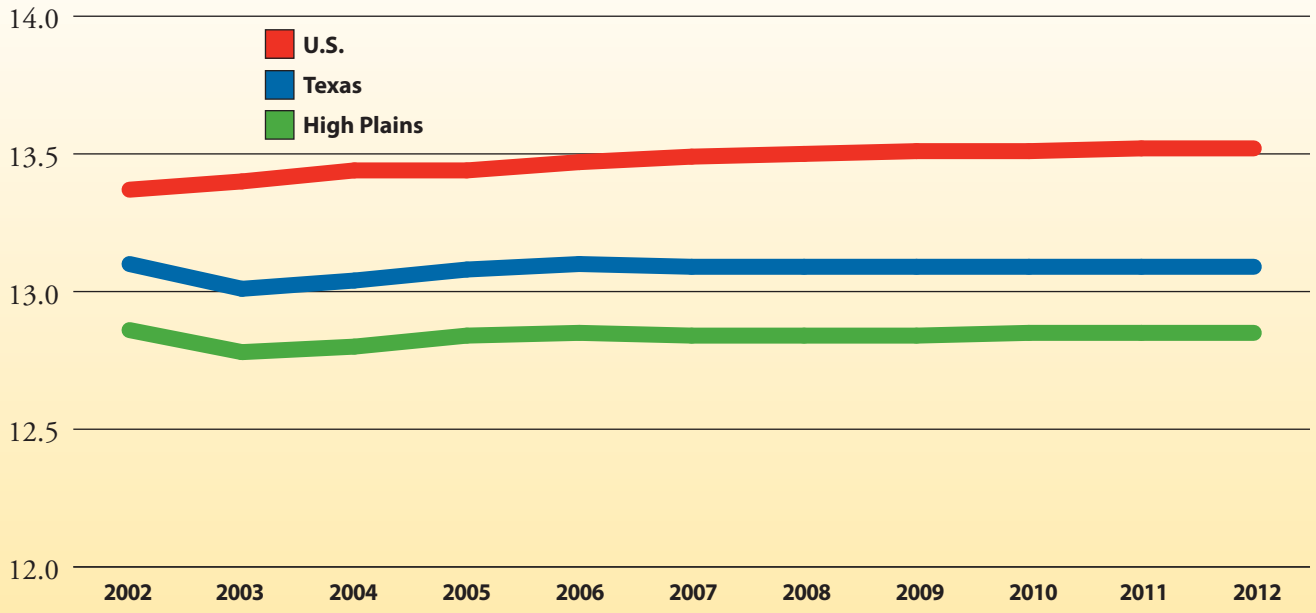
High Plains residents aged 25 or over had completed an estimated average of 12.8 years of education in 2007, slightly below the Texas average of 13.1 years. The national average, 13.5 years, was nearly five percent higher than that for the High Plains (**Exhibit 21**).

This educational gap is likely to widen slightly in the near future. The Comptroller's office projects that the average years of education for High Plains residents aged 25 and over will rise slightly by 2012, to 12.9, but the U.S. average will rise to 13.5. In other words, educational attainment in the High Plains region was 95.2 percent of the national average in 2007, but will fall to 95.0 percent by 2012.

Educational attainment varies by race and ethnicity. **Exhibit 22** presents the region's average years of education by ethnicity in 2007 and the expected levels in 2012. Asians,

Exhibit 21

Educational Attainment of Residents Aged 25 and Over, 2002-2012, High Plains, Texas and U.S. Averages, Average Years of Education



Source: Economic Modeling Specialists Inc.

Exhibit 22

High Plains Region Average Educational Attainment by Ethnicity, Persons Aged 25 and Over

	Average Years of Education per Capita 2007	Average Years of Education per Capita 2012	% Region Average, 2007	% Region Average, 2012
Asian	15.1	15.2	117.7%	118.4%
White	13.5	13.5	104.9	105.3
Other	13.2	13.3	102.9	103.3
Black	12.6	12.6	98.3	98.4
Hispanic	11.2	11.3	87.6	87.9
Region Average	**12.8**	**12.9**		

Note: Numbers may not total due to rounding.
Source: Economic Modeling Specialists Inc.

Whites and other ethnicities show above-average years of educational attainment in both years, while Blacks and Hispanics fall below the average.

Future Growth

Over the next five years, the Comptroller's office expects the High Plains region's population to rise by more than 50,000, reaching a total of nearly 854,700 by 2012. Yet growth will vary considerably across the region.

Differing population growth around the region will reflect varying demographic profiles, economic factors, occupational needs and educational levels. These differences will produce different economic and demographic outlooks for areas within the region.

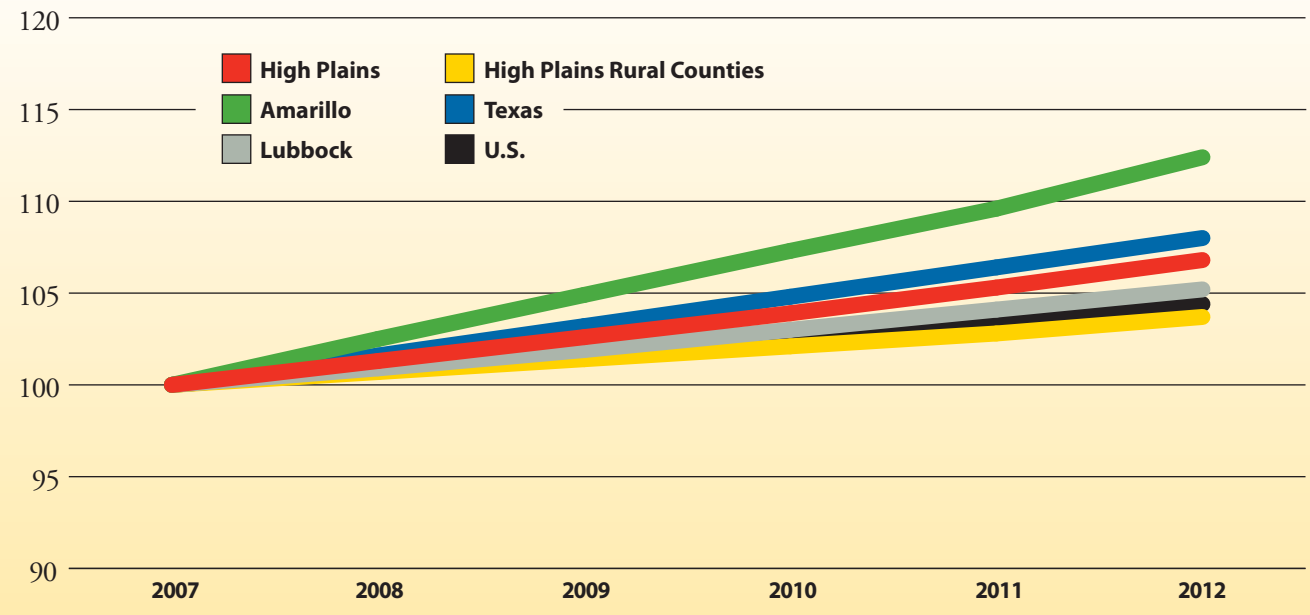
The population of the Amarillo metropolitan statistical area, consisting of Armstrong, Carson, Potter and Randall counties, will rise by 12.4 percent by 2012 outpacing the state; Lubbock County will see more moderate growth of 5.2 percent. Population growth will be somewhat slower in the region's remaining counties. There, total population should rise by just 3.7 percent by 2012, from 300,900 to 311,900 (**Exhibit 23**).

Punkin Days Festival in Floydada

More than a million pumpkins are grown and harvested in Floyd County each year. The county celebrates this bounty with a "Punkin Days" festival in Floydada. On a weekend in October, festival attendees can see all the varieties of pumpkin grown in Floyd County, from Atlantic Giants that weigh more than 100 pounds to mini-pumpkins weighing less than eight ounces. Punkin Days events include seed spitting contests, a costume contest, pumpkin pie baking and, of course, pumpkin carvings.[9]

Exhibit 23

High Plains Region: Actual and Projected Population Increase, 2007-2012



Source: Economic Modeling Specialists Inc.

Public Safety in the High Plains

One of the most important factors in a region's quality of life is public safety. Crime rates for the High Plains region, as with the rest of the state, fell from 2005 to 2006. The table below shows the rate of various criminal offenses per 100,000 residents for both the High Plains region and the state in 2005 and 2006.[10]

Crime Rate* – High Plains Region and Texas, 2005 and 2006

Crime	2005 High Plains Crime Rate	2005 Texas Crime Rate	2006 High Plains Crime Rate	2006 Texas Crime Rate	High Plains Change in Crime Rate	Texas Change in Crime Rate
Murder	3.8	6.1	3.3	5.9	-12.9	-3.3
Rape	38.9	37.2	40.8	35.8	5.0	-3.8
Robbery	89.6	156.5	105.4	158.5	17.6	1.3
Assault	450.3	329.6	455.9	316.8	1.2	-3.9
Violent Crime Rate	582.6	529.5	605.5	531.6	3.9	0.4
Burglary	992.3	960.6	975.2	916.3	-1.7	-4.6
Larceny	3,027.9	2956	2,783.3	2,752.8	-8.1	-6.9
Auto Theft	297.2	408.7	289.2	407	-2.7	-0.4
Property Crime Rate	4,317.4	4,325.3	4,047.7	4,191.6	-6.2	-3.1
Total Crime Rate	**4,900**	**4,854.8**	**4,653.2**	**4,593.1**	**-5.0**	**-5.4**

*All crime rate numbers are reported per 100,000 population.
Source: Texas Department of Public Safety.

The Comptroller's office estimates that public safety and criminal justice accounted for about 8,400 jobs in the region and more than $313 million in earnings in the High Plains region in 2006.

Endnotes

1 Data provided by Economic Modeling Specialists Inc.
2 Data provided by EMSI.
3 Data provided by EMSI.
4 Data provided by EMSI.
5 U.S. Census Bureau, "Household Income—Distribution by Income Level and State: 2005," http://www.census.gov/compendia/statab/tables/08s0684.xls. (Last visited March 20, 2008.)
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7 Executive Office of the President, Office of Management and Budget, *OMB Bulletin No. 08-01: Update of Statistical Area Definitions and Establishments* (Washington, D.C., November 20, 2007), pp. 23-39, http://www.whitehouse.gov/omb/bulletins/fy2008/b08-01.pdf. (Last visited March 5, 2008.)
8 Data provided by EMSI.
9 Floydada Chamber of Commerce, "Punkin Days," http://www.floydadachamber.com/punkin.htm. (Last visited September 19, 2007.)
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Infrastructure

The economic viability of any area is often defined by its basic infrastructure — its water sources, energy supplies and transportation systems. Adequate infrastructure can be the factor that determines whether businesses will locate in certain areas, attract talented workers and provide residents with a high quality of life. The High Plains region, like the rest of the state, faces several challenges in maintaining its infrastructure and expanding it to meet the area's growing needs.

With its wide-open spaces, abundant natural resources, thriving urban sectors and productive rural communities, the High Plains region is well positioned to continue its economic growth and development. A robust infrastructure should continue to provide the High Plains with a solid basis for future economic growth.

With its wide-open spaces, abundant natural resources, thriving urban sectors and productive rural communities, the High Plains region is well positioned to continue its economic growth and development.

Water

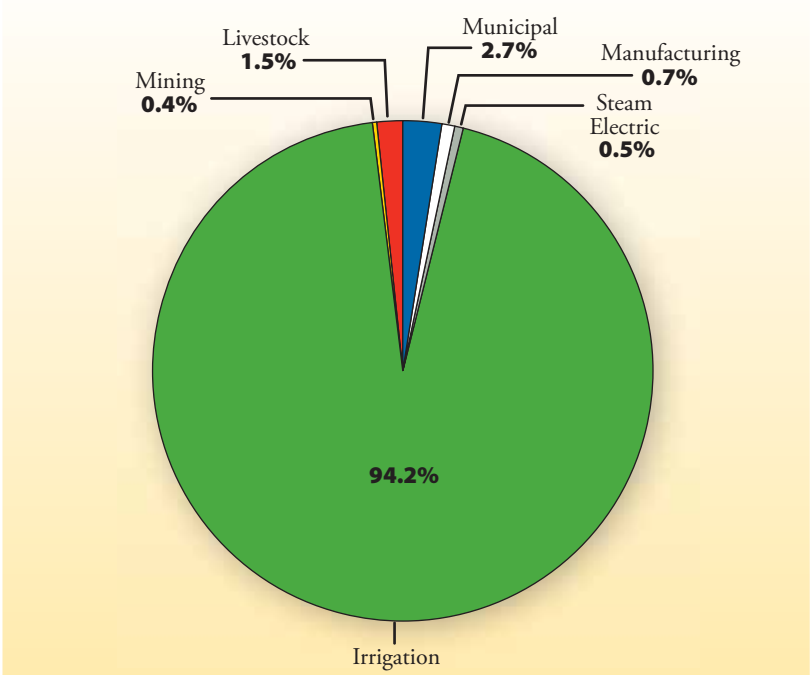
Water is critical to the irrigated crops and livestock that play such an important part in the 41-county High Plains economy, as the people of the High Plains know well. The region has one major river, seven reservoirs for municipal water supplies and an immense underground water source, the Ogallala Aquifer, which lies below parts of eight states. Average annual rainfall in the High

PHOTO: Lubbock Metropolitan Planning Organization

Marsha Sharp Freeway in Lubbock, Texas

Exhibit 24

High Plains Region Total Water Use, 2004



Source: Texas Water Development Board.

Department of Energy Facility Driving Growth in Amarillo

Pantex, located 17 miles outside of Amarillo, maintains the safety of the nation's nuclear arsenal. This private company, which is affiliated with the U.S. Department of Energy, repairs, dismantles and sanitizes nuclear weapons and stores dismantled bomb materials.

Pantex funding for fiscal 2008 totals $680 million. The facility has 3,600 full-time employees on its 25-square-mile complex.[1] Fiscal 2008 salaries are budgeted at $266 million, with an additional $104 million in benefits. The company estimates that the Pantex facility has a $1 billion annual economic impact on the local economy.[2]

Plains region ranges from 15 to 25 inches, with most areas receiving an average of 19 inches per year. (Statewide rainfall averages range from 10 inches annually in far West Texas to 55 inches in the far Southeast.)[3]

In 2004 (most recent data available), irrigation accounted for 94.2 percent of all water use in the High Plains region (**Exhibit 24**). This water supports the region's enormous agricultural output, including almost half of the state's wheat and more than 60 percent of its cotton and corn. The region also uses water for municipal water systems, livestock, manufacturing, electricity and mining.[4]

The High Plains region falls into two of the Texas Water Development Board's (TWDB's) regions, Panhandle and High Plains. Planning groups for these regions estimate that conservation and a greater use of dryland farming techniques will reduce its need for water in the coming years. TWDB expects the High Plains region's population to increase by about 35.6 percent by 2060 and their municipal water use to increase by just 22.2 percent (**Exhibit 25**).[5]

Surface Water

The High Plains region contains portions of four river basins — the Canadian, Red, Brazos and Colorado — but only the Canadian flows continuously within the region. The Canadian River, which bisects the upper Texas Panhandle, provides less than 3 percent of the upper Panhandle's drinking water and almost none to residents of the lower Panhandle.[6] Valuable rainfall in the region collects in thousands of small *playas*, or dry lakes, to supplement the water supplies for livestock and wildlife.

The region also contains 12 reservoirs and lakes (**Exhibit 26**). Five of these are not

Exhibit 25

High Plains Actual and Projected Total Water Use by Sector, 2000-2060 (acre-feet)

Sector	2000	2020	2040	2060
Irrigation	5,482,338	5,131,662	4,647,756	4,176,207
Livestock	75,343	138,793	148,332	159,105
Manufacturing	47,771	59,895	66,764	74,068
Mining	19,866	12,652	8,810	7,568
Municipal	166,444	180,597	193,640	203,398
Steam Electric	43,873	51,408	64,119	84,238
Total	**5,835,635**	**5,575,007**	**5,129,421**	**4,704,584**

Source Texas Water Development Board.

currently used as human water supplies because of their unreliable flow or because they were designed to supplement flows to another reservoir. TWDB expects the seven reservoirs and lakes that do serve as water supplies to yield more than 100,000 acre-feet of water in 2010. (One acre-foot of water equals 325,851 gallons, roughly the annual consumption of two suburban families.) In all, the 12 reservoirs and lakes have a total conservation storage capacity of more than one million acre-feet.[7]

Exhibit 26

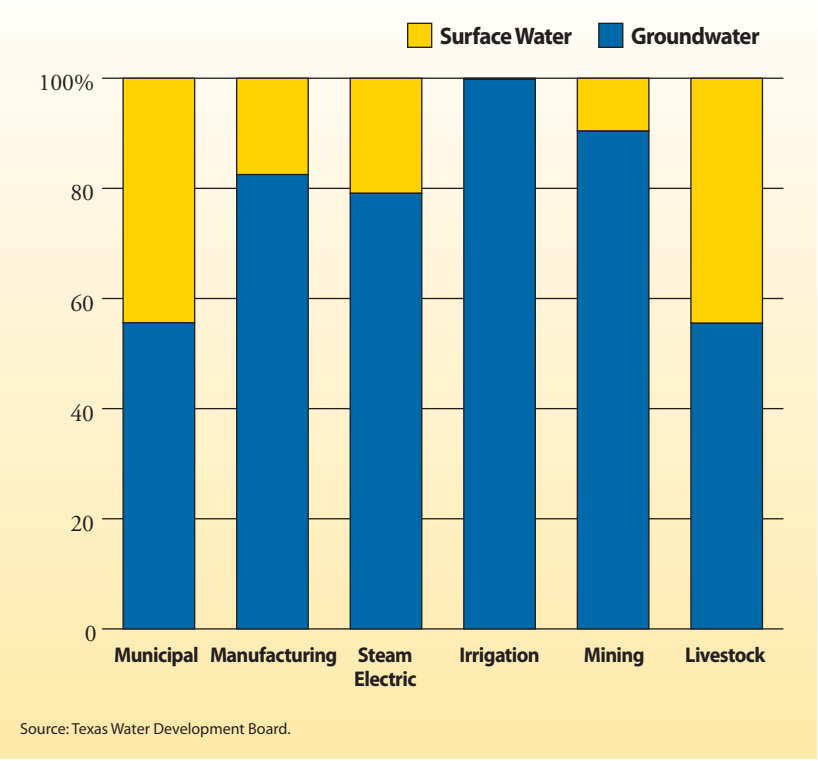
Major Lakes and Reservoirs in the High Plains Region

Reservoir/ Lake Name	River Basin	Year 2010 projected yield (acre-feet)	Conservation storage capacity (acre-feet)
Alan Henry Reservoir	Brazos	22,500	94,808
Baylor, Lake	Red	0	9,220
Bivins Lake	Red	No water supply function	5,120
Buffalo Lake	Red	No water supply function	18,150
Greenbelt Lake	Red	8,854	59,500
Lower Running Water Draw WS SCS Site 2 Dam	Brazos	No water supply function	5,429
Lower Running Water Draw WS SCS Site 3 Dam	Brazos	No water supply function	8,213
Mackenzie Reservoir	Red	0	46,429
Meredith, Lake	Canadian	69,750	779,556
Palo Duro Reservoir	Canadian	3,958	60,897
Rita Blanca, Lake	Canadian	No water supply function	12,100
White River Lake	Brazos	2,431	29,880
Total		**107,493**	**1,129,302**

Note: WS SCS means "Watershed – Soil Conservation Service," referring to the former U.S. Soil Conservation Service (now the U.S. Natural Resources Conservation Service) that built the dams.
Source: Texas Water Development Board.

Exhibit 27

High Plains Water Sources, by Sector, 2004



Source: Texas Water Development Board.

The 12 reservoirs and lakes have a total conservation storage capacity of more than one million acre-feet.

North of Amarillo, the Canadian has been dammed to form Lake Meredith, whose waters are mixed with groundwater to supply drinking water to Amarillo, Brownfield, Borger, Lamesa, Levelland, Lubbock, O'Donnell, Pampa, Plainview, Slaton and Tahoka via a 322-mile aqueduct system operated by the Canadian River Municipal Water Authority.[8]

Recent droughts have taken their toll on the region's surface water sources, despite good rains in 2007. At this writing, Lake Meredith is at its all-time lowest depth of 49.05 feet, containing about 82,000 acre-feet of water, less than 10 percent of its total storage capacity.[9]

Several governmental entities manage the region's surface water. River authorities for the Canadian, Brazos, Colorado and Red rivers have jurisdiction over their use and development. The Palo Duro River Authority in Hansford and Moore counties oversees water flowing from nearby creeks into the Palo Duro Reservoir in Hansford County. The Canadian River, which flows through New Mexico, Texas and Oklahoma, is governed by an interstate agreement concerning water quality (particularly salinity) and quantities allowed to each state. The Canadian River Municipal Water Authority manages the portion of the river within Texas borders.

Groundwater

Until late in the 19th century, the High Plains region's relative scarcity of surface water slowed its development. Ranching and dryland farming gradually took hold, aided by the arrival of the railroads. Once groundwater wells came into use in the early 1900s, agriculture expanded rapidly; improved technology at mid-century prompted an explosion of irrigation wells throughout the area. Soon, High Plains fields were providing the nation with wheat, sorghum, cotton and corn, forming an economic base that continues (along with beef and oil) to support the region today.[10]

In 2004 (most recent data available), groundwater from aquifers supplied virtually all (99.8 percent) of the water the region used for irrigation (**Exhibit 27**), and 97.6 percent of its total water supplies.[11]

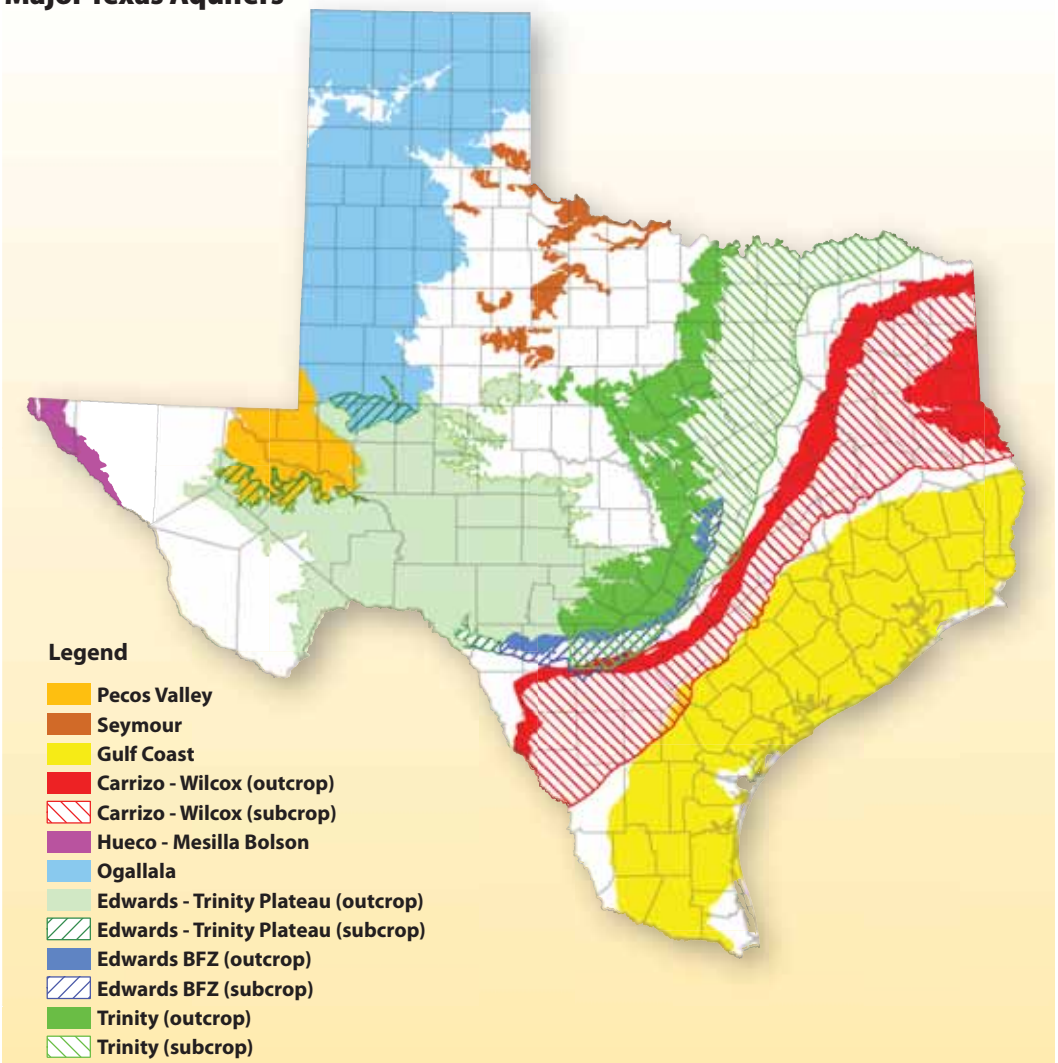
An aquifer is a water-bearing layer of permeable rock, sand or gravel within the earth. The High Plains region overlays portions of six aquifers, two major ones and four minor aquifers (**Exhibits 28** and **29**). TWDB projects that the largest and most important of

these, the Ogallala, will yield almost 6 million acre-feet of water for Texas in 2010.[12]

The Ogallala Aquifer, which stretches from Texas to Wyoming and South Dakota, holds an enormous amount of water deposited millions of years ago, in layers of varying depth and thickness. Lying above much of the aquifer is a layer of "cap rock" caliche whose resistance to weathering is largely responsible for the height of the high plains. This cap rock adds another barrier to the limited rainfall recharging the aquifer. According to the U.S. Geological Service, the recharge rate — that is, the rate at which water moves from the surface into the aquifer — in the High Plains region ranges from about two inches down to only 0.024 inches per year.[16] The Ogallala is not considered to

Exhibit 28

Major Texas Aquifers



Note: Outcrop – portion of water-bearing rock unit exposed at the land surface.
Subcrop – portion of water-bearing rock unit existing below other rock units.
Source: Texas Water Development Board.

Exhibit 29

Aquifers in the High Plains Region

Aquifer Name	Aquifer Type	Availability (acre-feet in 2010)
Ogallala	major	5,968,260
Dockum	minor	406,138
Blaine	minor	315,183
Seymour	major	242,226
Rita Blanca	minor	5,419
Edwards-Trinity (High Plains)	minor	4,160

Source: Texas Water Development Board.

The High Plains region has nine groundwater conservation districts, including three of the state's largest, as measured by land area.

be a recharging aquifer, as its rate of withdrawal (use) far exceeds its low recharge rate.

Laws approved by the Texas Legislature in 1999 and 2001 encourage the use of groundwater conservation districts (GCDs or GWCDs), led by locally elected or appointed officials, to manage groundwater sources. The High Plains region has nine groundwater conservation districts, including three of the state's largest, as measured by land area — the High Plains Underground Water Conservation District No. 1 in the Lubbock area; the Panhandle Groundwater Conservation District (PGCD) in the Amarillo area; and the North Plains Groundwater Conservation District in the northern Panhandle. The High Plains district was the state's first GCD, created in 1951 and covering 10,728 square miles.[17]

GCDs have some options to restrict groundwater pumping to maintain aquifer sustainability. Some, such as High Plains and PGCD, have ad valorem taxing authority, while others, such as the Garza County Underground and Fresh Water Conservation District and the Salt Fork Underground Water Conservation District in Kent County, do not. State law generally allows districts to receive revenue through bond proceeds, fees, investments, grants and loans, depending on the statute creating the district.

State law requires TWDB to plan for water usage through the use of Regional Water Planning Groups (RWPGs), which are made up of local government officials and representatives of business, industry, agriculture,

Scenic Beauty in the High Plains

The High Plains region is home to some of the state's outstanding scenic and natural areas, including Caprock Canyons State Park and Palo Duro Canyon State Park.

Caprock Canyons State Park is located southeast of Amarillo in Briscoe, Floyd and Hall counties. Opened in 1982, it is 15,313.6 acres in size, including a 64-mile railway converted into a recreational trail. The park is home to the official Texas State Bison Herd. In fiscal 2006, Caprock Canyons State Park had more than 73,000 non-local visitors who spent more than $402,000 in the local area. Caprock Canyons State Park had an overall positive economic impact on Briscoe, Floyd and Hall counties of just over $843,000.[13]

Opened in 1934, Palo Duro Canyon State Park, the "Grand Canyon of Texas," covers 16,402 acres south of Amarillo in Armstrong and Randall counties.[14] In fiscal 2006, Palo Duro Canyon State Park had nearly 229,000 non-local visitors who spent more than $6.1 million in the local area. Palo Duro Canyon State Park had an overall positive impact on Armstrong and Randall counties of about $9.4 million.[15]

National Monuments, Parks, Recreation Areas and Habitats

In addition to state parks, the High Plains region is home to the Alibates Flint Quarries National Monument, located within the Lake Meredith National Recreation Area. Native Americans worked these quarries for many centuries to obtain a high-quality flint for making tools and weapons. Lake Meredith itself was created to supply water and recreational opportunities for the Panhandle region. Alibates Flint Quarries and Lake Meredith are located about 35 miles north of Amarillo in Carson, Hutchinson, Moore and Potter counties.[18]

The High Plains region is also home to the Black Kettle and McClellan Creek national grasslands. The Black Kettle National Grassland contains 31,300 acres, including the 576-acre Lake Marvin near Canadian, Texas. Lake Marvin, also known as Boggy Creek Lake, is an artificial lake constructed in the 1930s on Boggy Creek in East Central Hemphill County by the Panhandle Water Conservation Authority, primarily for soil conservation, flood control, recreation and wildlife habitat. About 1,300 acres of these grasslands are located in Hemphill County, while the remaining 30,000 acres are in Roger Mills County, Oklahoma. The McClellan Creek National Grassland in Gray County, near Pampa, contains 1,449 acres.

In addition, the Buffalo Lake National Wildlife Refuge in Randall County preserves 7,664 acres of shortgrass prairie, riparian, marsh, woodland and cropland habitats.

In 2003, the National Park Service estimated that the national parks, monuments and preserves in the High Plains region generated nearly $39.6 million in positive economic activity for the surrounding local areas.[19]

The High Plains region has a number of lakes and reservoirs that offer recreational activities including boating and fishing.[20] The table below shows the recreational lakes and reservoirs in the region, their location and approximate size and average depth.

The region also has several state wildlife management areas (WMAs), including the Playa Lakes Armstrong Unit in Castro County and the Playa Lakes Taylor Lakes Unit in Donley County. These are managed by the Playa Lakes Joint Venture (PLJV), a partnership of federal and state wildlife agencies, conservation groups, private industry and landowners dedicated to conserving bird habitats in the southern Great Plains.

The 640-acre Playa Lakes Armstrong Unit is surrounded by grassland and former farmland that offers wildlife viewing from surrounding roads. It attracts migratory waterfowl and shorebirds during the fall, winter and spring. The Taylor Lakes Unit contains about 214 acres of restored grasslands, 231 acres of pastureland and 85 acres of wetlands near Clarendon, one of the area's first settlements.

Gene Howe WMA includes 5,886 acres located along the Canadian River in the northern rolling plains of Hemphill County. Texas Parks and Wildlife Department purchased Gene Howe, originally part of a family farm, in 1993 to preserve and provide wintering habitat in the playa lakes for migratory waterfowl and shorebirds.[21]

Recreational Lakes and Reservoirs High Plains Region

Name	Location	Size	Average/ Maximum Depth
Alan Henry Reservoir	45 miles south of Lubbock	2,880 acres	40 feet/100 feet
Baylor Creek Reservoir/ Lake Baylor	12 miles west of Childress	610 acres	15 feet/50 feet
Buffalo Springs Reservoir/Buffalo Lake	5 miles east of Lubbock	241 acres	15 feet/52 feet
Greenbelt Reservoir/ Greenbelt Lake	60 miles east of Amarillo	1,500 acres	30 feet/84 feet
Mackenzie Reservoir	10 miles northwest of Silverton	896 acres	52 feet/150 feet
McClellan Reservoir	50 miles east of Amarillo	339.2 acres	4 feet/21 feet
Lake Meredith	45 miles northeast of Amarillo	16,411 acres	30 feet/127 feet
Palo Duro Reservoir	10 miles north of Spearman	2,413 acres	46 feet/77 feet
White River Reservoir/ White River Lake	25 miles south of Crosbyton	1,418 acres	11 feet/65 feet

Source: Texas Parks and Wildlife Department.

conservation groups and others. The groups estimate future water use for their areas over the next five decades covered in the State Water Plan. In the plan, water needs are defined as any amount of demand that is not met by the existing water supply. The planning groups develop water management strategies to meet their projected needs; these can include conservation (through more efficient use or cutbacks in usage) as well as new sources such as desalination, new reservoirs or the reuse of water.

Two RWPGs, Llano Estacado in the Lubbock area and the Panhandle group in the Amarillo area, provide this service for most of the High Plains region. The most recent water plans by these two RWPGs both note that groundwater from the Ogallala Aquifer is the region's primary source of water and is being used at a rate that exceeds recharge.

The Llano Estacado group calls this practice "managed depletion." The Panhandle group in the Amarillo area capped the drawdown of the aquifer in their area at 1.25 percent per year of the "current saturated thickness" — the water-bearing underground strata. Because of this practice, both groups estimate that water supplies in the High Plains region will decline by nearly 50 percent by 2060.[22]

Conservation efforts by area farmers are making a dramatic difference in High Plains water use. The groups' projections show a combined 18 percent decrease in overall demand for water between 2010 and 2060, driven by reduced irrigation demand. If all of the proposed water management strategies for the region are implemented, however, the area still anticipates a shortfall by 2060, mostly in the region's southern half.[23]

Trends indicate that agricultural water use inevitably will give way to lower-volume municipal demand, at least in part. Agricultural interests in the region, keenly aware that groundwater may no longer be available in the quantities used in the past, are planting more dryland crops and adopting water efficiency technologies.

Dryland farming techniques, combined with new technology, should sustain the region's traditional economic base. New strategies and new priorities for water supply development and use will continue to challenge all residents of Texas, and particularly those in the High Plains.

Energy

As with the rest of Texas, oil and natural gas are still quite important to the High Plains economy. The region is home to two of the state's top 25 oil fields, the Anton-Irish Field in Hale County and the Levelland Field in Hockley, Cochran and Terry counties, as well as two of the state's top 25 natural gas fields, the Texas Hugoton Field in Sherman County and the Panhandle West Field in Hartley, Potter, Moore, Hutchinson, Carson, Gray, Wheeler and Collingsworth counties.[24]

The Comptroller's office has determined that oil and natural gas production accounted for more than 7,000 jobs and over $126 million in earnings for people living in the High Plains in 2006.[25]

The High Plains region also has a high potential for wind energy, one of the world's fastest-growing sources of energy. In 2007, for example, U.S. wind power capacity grew by 43 percent while Texas' rose by 57 percent. Texas is the national leader in installed wind capacity.[26]

According to a 1986 assessment by the Pacific Northwest Laboratory (PNL), a federal research center, Texas ranks second among states for wind potential.[27] More recently, the Alternative Energy Institute (AEI) at West Texas State University updated PNL's wind resource data. They identified three areas in Texas with significant wind power potential: the Panhandle (including part of the High Plains region), the Gulf Coast and specific areas in the Trans-Pecos region. According to AEI, the Panhandle "contain[s] the state's greatest expanse with high quality winds. Well-exposed locations atop the cap rock and hilltops experience particularly attractive wind speeds."[28]

While the High Plains region is among the state's most wind-rich areas, it lacks the transmission lines needed to fully exploit this resource. State legislation approved in 2005, however, may provide greater access to transmission lines and increase wind energy development in the region.

Some landowners, particularly those within the right of way of any prospective transmission lines, are concerned that power lines could cause them to lose some of their land or limit the use of some of their land. Landowners with transmission lines receive a one-time payment based on the value of the land used, while landowners with wind turbines receive ongoing payments.

At the end of 2007, Texas had 4,296 megawatts (MW) of installed wind capacity.[30] In the High Plains region, wind farms currently operating or under construction have an installed capacity of more than 500 megawatts (**Exhibit 30**).[31] The installed wind capacity in the High Plains region can power about 132,000 homes.

Air Quality

The Texas Commission on Environmental Quality monitors Amarillo's Air Quality Index (AQI) on a daily basis. The city's AQI score typically falls in the "good" range, between 0 and 50. Amarillo has better air quality than most of the other major urban areas around the state, which more typically see AQIs in the "moderate" range, falling between 51 and 100.[29]

The region's wind capacity may well increase in the near future, Shell WindEnergy Inc. and Luminant, a subsidiary of Energy Future Holdings Corporation, recently announced a joint development agreement for a 3,000-megawatt wind project in Briscoe County.[32]

Since 1999, Texas has had a Renewable Portfolio Standard (RPS) that requires electric utilities to obtain some of the state's electricity from renewable sources including solar, wind, biomass, landfill gas, geothermal, hydroelectric, wave and tidal. The 2005 Legislature's Senate Bill 20 significantly increased the state's emphasis on renewable energy, increasing the RPS goal by an additional 5,000 MW of capacity, for a total of 5,880 MW by 2015. S.B. 20 also required the Public Utility Commission of Texas (PUC) to designate Competitive Renewable Energy Zones (CREZs), areas of the state with supplies of renewable energy resources that lack the transmission infrastructure needed to deliver that energy to the customer.

In August 2007, after evaluating about two dozen areas of the state, PUC selected six CREZs as the best sites to develop additional renewable energy capacity, with costs for

DID YOU KNOW?

The Texas High Plains contains four river basins — the Canadian, Red, Brazos and Colorado.

Exhibit 30

High Plains Region Wind Energy Generating Plants Operating or Under Construction, 2007

Facility Name	Location	Generation Capacity
Wildorado	Oldham County	161 MW
John Deere Wind I, II, III, IV, V and VI	Hansford County	130 MW
Red Canyon Wind Energy	Borden, Garza and Scurry counties	84 MW
Llano Estacado at White Deer	Carson County	80 MW
Whirlwind Energy Center	Floyd County	60 MW
Aeolus Wind Energy	Hansford County	3 MW
Indian Mesa Wind Farm	Hansford County	3 MW
Llano Estacado at Lubbock	Lubbock County	2 MW
American Windmill Museum	Lubbock County	1 MW
Total	**----**	**524 MW**

Sources: American Wind Energy Association and Xcel Energy.

construction of lines covered by all Texas consumers through a surcharge on their utility bills. Two of the six approved CREZs are in the High Plains region.

Several companies have formed partnerships to build transmission lines to the CREZs.[33] One company has filed a proposal with PUC to build an 800-mile transmission loop in the Texas Panhandle to connect 8,000 MW of capacity, mostly from wind power, to the Electric Reliability Council of Texas (ERCOT) electric grid.[34] According to ERCOT, installing a single mile of transmission lines costs approximately $1.5 million; the 800-mile Panhandle Loop could cost in excess of $1 billion.[35]

Utility Rates and Services

Eight "reliability councils" in the U.S. manage the transfer of electricity across North America and make efforts to ensure reliable electricity transmission. ERCOT is Texas' largest reliability council; it manages the flow of 85 percent of the state's electric load and covers about 75 percent of its land area.[36] Of the 41 counties in the High Plains region, all but six and a portion of a seventh (Childress County, Collingsworth County, Dickens County, Hall County, King County, Motley County and half of Donley County), are outside the ERCOT grid; the remaining counties are part of a separate reliability council, the Southwest Power Pool (SPP).

The High Plains counties that fall within the SPP also are connected to a different electric grid than those in ERCOT. Three interconnected physical electric grids of transmission lines serve North America — the western grid, the eastern grid and ERCOT's Texas-only grid. With the exception of its ERCOT counties, the High Plains region receives its electricity from the

western grid. This means that most of the region falls outside the partially deregulated retail market most Texans participate in, and therefore their utility rates are subject to PUC approval.

Retail, commercial and industrial customers in the region purchase their electricity from an investor-owned utility, a municipally owned utility or a member-owned cooperative. The largest investor-owned utility in the region is Xcel Energy, which provides electricity in all but six High Plains counties. The region also has six municipally owned utilities and 13 cooperatives (**Exhibit 31**).

Residential electricity rates charged in the High Plains region vary little from county to county and are some of the lowest in the state. Southwestern Public Service, a subsidiary of Xcel Energy, which serves a large portion of the region, charged an average of

DID YOU KNOW?

The Texas High Plains region has 50 public airports.

Exhibit 31

High Plains Region Municipally Owned and Cooperative Utilities

Municipal Utility	City	Cooperative	County
Brownfield Power & Light	Brownfield	Rita Blanca Electric Cooperative	Dallam, Hansford, Hartley, Hutchinson, Moore, Oldham, Potter, Sherman
City of Floydada	Floydada	Deaf Smith Electric Cooperative	Castro, Deaf Smith, Oldham, Parmer
Lubbock Power & Light System	Lubbock	North Plains Electric Cooperative	Hansford, Hemphill, Ochiltree, Roberts
West Texas Municipal Power Agency	Lubbock	Swisher Electric Cooperative	Armstrong, Briscoe, Castro, Hale, Randall, Swisher
City of Plains	Plains	Greenbelt Electric Cooperative	Armstrong, Childress, Donley, Gray, Hemphill, Randall, Roberts, Wheeler
Tulia Municipal Power & Light	Tulia	Lighthouse Electric Cooperative	Briscoe, Childress, Collingsworth, Crosby, Dickens, Donley, Floyd, Hale, Hall, Motley, Swisher
-	-	Lamb County Electric Cooperative	Bailey, Castro, Cochran, Hale, Hockley, Lamb
-	-	Bailey County Electric Cooperative Association	Bailey, Castro, Cochran, Lamb, Parmer
-	-	Lyntegar Electric Cooperative	Garza, Hockley, Lynn, Terry, Yoakum
-	-	South Plains Electric Coop/ Dickens	Childress, Crosby, Dickens, Floyd, Garza, Hale, Hall, Hockley, King, Lamb, Lubbock, Lynn, Motley
-	-	Tri-County Electric Cooperative	King
-	-	Lea County Electric Cooperative	Chochran, Yoakum
-	-	Big Country Electric Cooperative	Garza

Source: Public Utility Commission of Texas and Texas Electric Cooperatives.

Hunting is Thriving in the High Plains

Every county in the High Plains region offers some sort of legal hunting, and several counties offer hunting year-round, depending on the type of hunt. In 2007, hunting and fishing enthusiasts in the High Plains region purchased more than 72,000 licenses at a cost of nearly $2.5 million. All revenues collected from the sale of hunting and fishing licenses go to a dedicated state fund set up for the protection, regulation and conservation of the state's fish and wildlife.[37]

Fifteen of the region's counties — Bailey, Cochran, Dallam, Deaf Smith, Hale, Hartley, Hockley, Lamb, Lynn, Lubbock, Oldham, Parmer, Sherman, Terry and Yoakum — place some restrictions on hunting; in general, no white-tailed deer or turkey hunting is allowed in these counties.[38] Beyond these local limitations, the table below shows the types of hunting allowed in the region.

Bag Limits and Other Applicable Hunting Regulations, High Plains Region

Animal	Season
White-tailed Deer	Open season lasts from November 3 until January 6. The limit is three deer, with only one buck and no more than two antlerless. Antlerless deer may be hunted without a permit unless antlerless Managed Land Deer Permits (MLDP) are issued. Archery season lasts from September 29 until November 2. The limit is three deer, no more than one buck and no more than two antlerless. Antlerless deer may be hunted without a permit unless antlerless Managed Land Deer Permits (MLDP) were issued. A special youth-only season occurs twice a year on October 27 and 28, and January19 and 20.
Mule Deer	The season lasts from November 17 until December 2. The limit is two deer with only one buck. Antlerless deer may be taken only by Antlerless Mule Deer Permit or MLDP. Archery season for mule deer lasts from September 29 until November 2. The limit is one buck.
Squirrel	Squirrel season is open year-round with no limit.
Rabbit	Rabbit season is open year-round with no limit.
Turkey	November 3 – January 6. The annual bag limit for Rio Grande and Eastern turkey, in the aggregate, is four, no more than one of which may be an Eastern turkey. Archery only: September 29 – November 2. Special youth-only season: March 22-23 and May 17-18.
Pheasant	December 1 – December 30 with no limit.
Quail	October 27 – February 24. Daily bag limit: 15; possession limit: 45.
Dove	September 1 – October 30 with no limit.

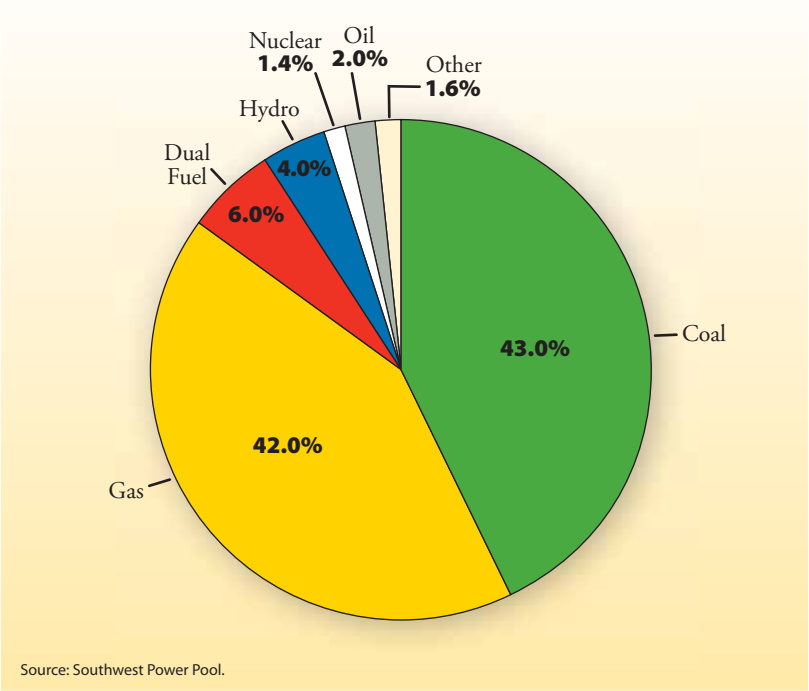
Source: Texas Parks and Wildlife Department.

8.4 cents per kWh for residential electricity in January 2008. Lubbock Power and Light reported similar rates as Xcel Energy.[39]

The High Plains region uses a number of fuel sources to generate electricity. SPP reports that in 2007, the majority of its electricity was generated from coal and natural gas (**Exhibit 32**).[40]

Exhibit 32

Southwest Power Pool Generating Capacity



Source: Southwest Power Pool.

Transportation

Transportation is essential to the economic health of the High Plains region. The region's roads are its primary way of moving its agricultural and energy products to urban markets. The region's road network is vast, but roadway concerns and spending in the region center on a select few roads, including:

- Interstate Highway 40, running east to west through the Panhandle;
- Interstate Highway 27/U.S. Highway 87, running north to south through the Panhandle;
- the intersection of Interstate Highways 40 and 27 in Potter and Randall counties; and
- the Marsha Sharp Freeway/U.S. Highway 82, running east and west through the city of Lubbock.[41]

Highways

TxDOT builds and maintains the Texas state highway system through local offices and contractors located around the state. The High Plains region is served by TxDOT district offices in Amarillo, Lubbock and Childress.

The High Plains region has 10,468 centerline miles (miles traveled in a single direction regardless of the number of lanes) and 23,880 total lane miles of state highways. The region has 758,073 registered vehicles that travel more than 19.8 million miles daily.[42] The state as a whole contains 79,696 centerline miles, 190,764 total lane miles and over 20 million registered vehicles that travel nearly 477.8 million miles each day (**Exhibit 33**).

Road construction, maintenance and engineering for state, local and private entities accounted for over 5,000 jobs and over $184 million in earnings in 2006 for people in the High Plains region.[43]

Trade Corridor

To better connect the region with its markets, and encourage much-needed economic development, many area community leaders as well as the Texas Department of Transportation (TxDOT) support the creation of a Ports-To-Plains Trade Corridor (**Exhibit 34**). The corridor is a multi-state effort to connect

Exhibit 33

Highway Miles, Vehicle Miles Driven and Registered Vehicles, High Plains Region, 2006

County Name	Centerline Miles	Lane Miles	Daily Vehicle Miles	Registered Vehicles
Armstrong	153	378	312,974	2,635
Bailey	225	490	226,893	6,708
Briscoe	162	326	58,433	2,153
Carson	314	776	817,864	6,835
Castro	261	534	285,056	7,688
Childress	210	477	331,992	6,128
Cochran	232	468	100,172	3,070
Collingsworth	218	446	99,636	3,238
Crosby	253	569	213,435	5,861
Dallam	297	609	297,860	6,146
Deaf Smith	273	603	380,834	18,011
Dickens	202	469	106,269	3,041
Donley	186	455	505,163	3,641
Floyd	324	703	196,855	7,203
Garza	184	460	410,575	4,637
Gray	338	773	696,619	24,411
Hale	460	1,057	868,538	29,239
Hall	210	460	226,301	3,338
Hansford	261	525	125,207	6,212
Hartley	253	540	300,480	5,360
Hemphill	183	386	171,677	5,621
Hockley	336	752	624,443	21,343
Hutchinson	207	474	338,140	25,828
King	93	199	77,966	521
Lamb	362	805	471,190	13,708
Lipscomb	197	411	94,619	3,353
Lubbock	636	1,713	3,580,033	223,699
Lynn	319	710	354,609	5,928
Moore	200	467	441,017	19,737
Motley	165	331	60,897	1,642
Ochiltree	212	430	238,925	12,035
Oldham	179	473	590,735	2,567
Parmer	254	614	411,777	9,777
Potter	301	886	2,615,362	101,842
Randall	360	901	1,296,178	116,793
Roberts	120	241	79,138	1,190
Sherman	195	429	207,696	2,788
Swisher	350	806	424,295	6,400
Terry	276	630	433,260	12,509
Wheeler	298	672	535,371	6,443
Yoakum	208	431	232,086	8,794
High Plains Total	**10,468**	**23,880**	**19,840,570**	**758,073**
Statewide Total	**79,696**	**190,764**	**477,769,968**	**20,084,036**

Source: Texas Department of Transportation.

the inland "port" of Laredo, Texas, to Denver, Colorado, and other locations in the Great Plains. In the High Plains region, Interstate Highway 27/U.S. Highway 87 would form an integral part of the trade corridor.

The Ports-To-Plains Trade Corridor is different from other trade corridors proposed in Texas and elsewhere in that it probably would not be tolled nor involve the construction of any new roads, but instead would improve and expand existing roads and rights of way.

Texas is supporting the corridor with $40 million worth of four-lane expansion projects now under construction. An additional $275 million has been earmarked for expansion projects through 2014. In addition, TxDOT has pledged another $458 million through 2014 to build reliever routes (routes around congested areas) along the corridor.[44]

According to a 2004 Corridor Development Management Plan prepared jointly by TxDOT and the transportation departments of Colorado, New Mexico and Oklahoma, the Ports-To-Plains Trade Corridor would generate 43,000 jobs with a total income of $4.5 billion in communities along the corridor from 2006 through 2030. The report also estimated that Texas could see about 17,000 new jobs in manufacturing and transportation/warehousing between 2006 and 2030 due to the corridor. These new jobs, along with increased tourism in the area, were estimated to generate just under $2.2 billion in positive economic impacts in Texas.[46]

Texas Prairie Rivers Region Bringing Tourism and Money to the High Plains

A group of ranchers, business owners and concerned citizens in the eastern counties of the Panhandle created a plan to bring tourism and economic development projects to their part of the state. As part of this effort, they formed the Texas Prairie Rivers Region (TPRR), a nonprofit organization representing 15 counties in the region.

TPRR has pursued and received grants from federal and state agencies, private landowners, foundations and local governments, and is a group of more than 500 organizations who work on projects to benefit local businesses and landowners by promoting the area's natural resources and culture.

Among other projects, TPRR has worked with the U.S. Fish and Wildlife Service and the Texas Parks and Wildlife Department to create a guide for tourists interested in the diverse landscape and wildlife of the prairies and plains. Nature tourists, particularly bird-watchers, come from around the world to see the mating rituals of the lesser prairie chicken on a farm east of Canadian, and to Lipscomb to see flocks of wild turkeys gathering at a watering hole.

TPRR also has developed conservation and education programs to promote the region and its rural communities. These programs have brought millions of tourism dollars to the region. The group has secured $5 million in grants since 2001.[45]

Exhibit 34

Ports-To-Plains Trade Corridor – High Plains Region

Source: Ports-To-Plains Trade Corridor.

Public Transportation

In the city of Amarillo, the Amarillo City Transit System (ACTS) provides public transportation and special transit services; Citibus provides these services in the city of Lubbock. Outside these urban areas, all transit services for the public in the region are provided by the Caprock Community Action Agency (Captrans), the Panhandle Transit District (PTD) and the South Plains Area Rural Transportation Assistance Network (SPARTAN) (**Exhibit 35**).[47]

Railways

Seven companies, four local railroads and three switching and terminal railroads (small operations primarily involved in transferring goods between major railroads) are headquartered in the High Plains region, controlling 300 miles of railway track in the area.[48] In addition, Union Pacific Railroad Company and Burlington Northern Santa Fe operate tracks in the High Plains, the majority of them around the cities of Lubbock and Amarillo (**Exhibit 36**).

Railways play an important role in transporting agricultural goods and are especially important in the High Plains region. Rail is typically the least-expensive mode of transporting agricultural products; if rail is not available, agricultural producers usually transport their goods by truck to the nearest rail terminal. An expanded rail system could greatly benefit the High Plains region. There are no current planned improvements to the rail system in the High Plains region, but state and local officials are currently studying the economic viability and need of these improvements.[50]

Exhibit 35

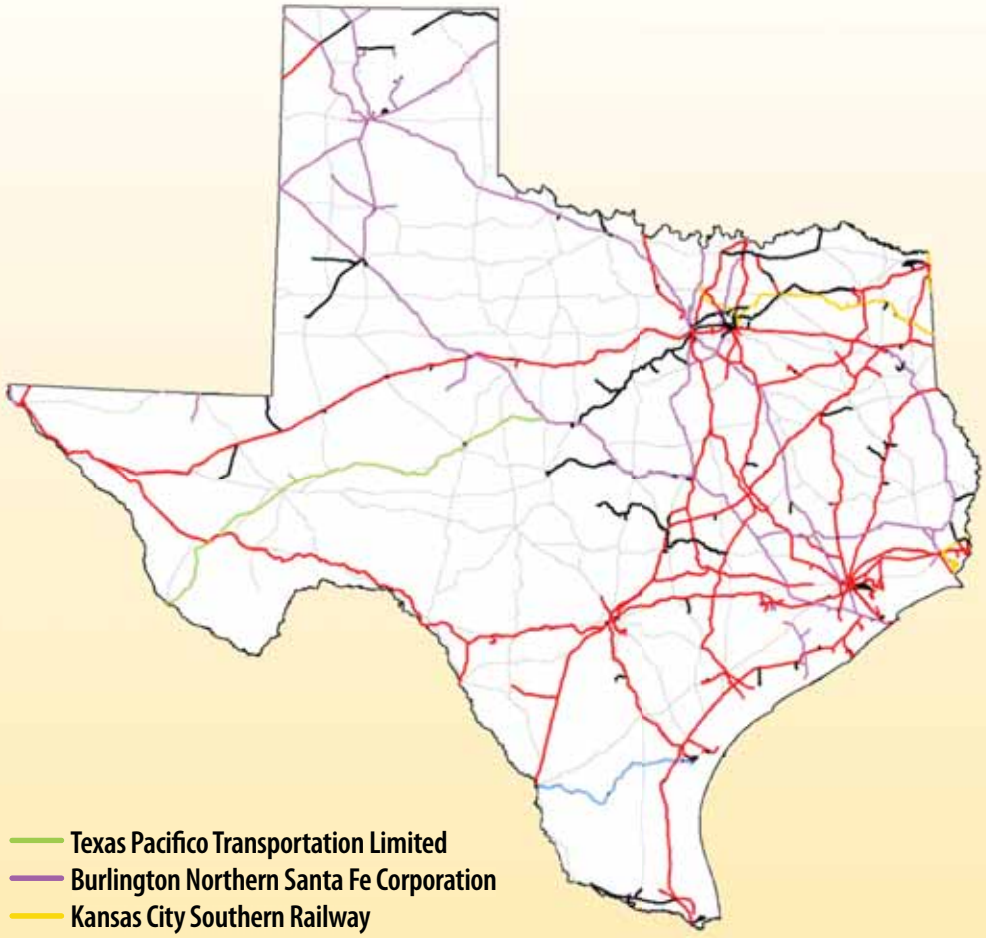
Public Transportation Resources, High Plains Region

County Name	Public Transit Authorities
Armstrong	PTD
Bailey	SPARTAN
Briscoe	PTD
Carson	PTD
Castro	PTD
Childress	PTD
Cochran	SPARTAN
Collingsworth	PTD
Crosby	Captrans
Dallam	PTD
Deaf Smith	PTD
Dickens	Captrans
Donley	PTD
Floyd	Captrans
Garza	SPARTAN
Gray	PTD
Hale	Captrans
Hall	PTD
Hansford	PTD
Hartley	PTD
Hemphill	PTD
Hockley	SPARTAN
Hutchinson	PTD
King	Captrans
Lamb	SPARTAN
Lipscomb	PTD
Lubbock	SPARTAN and Citibus
Lynn	SPARTAN
Moore	PTD
Motley	Captrans
Ochiltree	PTD
Oldham	PTD
Parmer	PTD
Potter	ACTS and PTD
Randall	ACTS and PTD
Roberts	PTD
Sherman	PTD
Swisher	PTD
Terry	SPARTAN
Wheeler	PTD
Yoakum	SPARTAN

Source: American Public Transportation Association.

Exhibit 36

Texas Rail Lines and Major Highways



Source: Texas Department of Transportation.

Top O' Texas Rodeo

Pampa, located 60 miles northeast of Amarillo, has hosted the Top O'Texas Rodeo for 61 years. For three days in August, at least 3,000 people watch the rodeo and participate in the activities planned around its performances. Contestants and performers come from as far away as Montana. Entire families come for the week to participate in the Youth Rodeo and the Kid Pony Show. The community supports the rodeo by hosting a free barbecue dinner on Thursday night, a parade on Saturday and a Miss Rodeo Pageant on Saturday night.[49]

Airports

The High Plains region contains 50 public airports, including four in the Amarillo area and three in Lubbock County.[51]

Lubbock Preston Smith International Airport is the region's busiest, with 564,799 passenger boardings in 2006, up 2.3 percent from 552,023 boardings in 2005.[52] The airport had more than 87,000 takeoffs and landings in 2006, including air carriers, air taxis, civil flights and military flights.[53] This airport is served by American Eagle, Continental Express and Southwest Airlines.[54]

Rick Husband Amarillo International Airport is the region's second busiest, with 446,926 boardings in 2006, up by just 0.1 percent from 2005's 446,395 boardings.[55] This airport is served by American Eagle, Continental Express, Great Lakes Aviation and Southwest Airlines.[56]

Endnotes

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Health Care

Health care is directly connected with economic development and growth. High-quality health care options attract potential employers, create a healthy work force and increase productivity. Occupations in the health care field contribute to the economic health of a region through generally high-paying jobs for doctors, nurses, technicians and administrators.

Health care professionals have developed innovative solutions to meet the needs of the region's large rural population. The size and largely rural character of the High Plains region means that many area residents live at a considerable distance from health care facilities, while the region also faces a general shortage of health care providers. The region, like the rest of the state, also has high rates of uninsured residents. According to the Texas State Office of Rural Health's March 2007 *Rural Health Work Plan*:

> Rural areas have higher percentages of the elderly than urban areas. [A] higher number of uninsured also is apparent in these areas. The combination of these factors, plus the limited number of providers in many areas, can strain some already overburdened health care systems.[1]

Innovation will be the key to meeting the health care needs of the people of this region.

The High Plains region is home to 36 acute care and psychiatric hospitals.

PHOTO: South Plains College

Surgical instrumentation class at South Plains College in Levelland, Texas

Hospitals

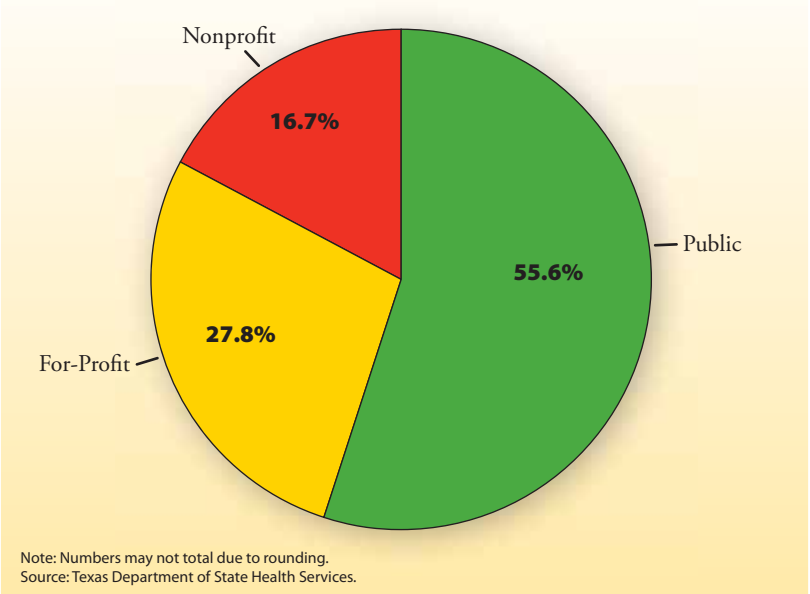
The High Plains region is home to 36 acute care and psychiatric hospitals, including 20 public, 10 for-profit and six nonprofit institutions (**Exhibit 37**). Of the 36 hospitals, six are in Lubbock and six are in Amarillo; the remaining 24 are located in rural areas.

The largest hospital in the region is Lubbock's Covenant Medical Center, which has more than 850 staffed beds and more than 30,000 admissions in 2005. Also in Lubbock, the University Medical Center admitted more than 20,000 patients in 2005. Amarillo's Baptist St. Anthony's and Northwest Texas Hospital had nearly 20,000 admissions in the same year.[2]

Fifteen High Plains counties have neither an acute care nor a psychiatric hospital (**Exhibit 38**).[3]

Exhibit 37

High Plains Acute and Psychiatric Hospital Ownership, 2005



Note: Numbers may not total due to rounding.
Source: Texas Department of State Health Services.

In 2005 (most recent data available), the region's hospitals had 3,207 staffed beds and 124,385 admissions.[4]

The High Plains region also has 33 hospital districts (**Exhibit 39**).

Health Insurance

All Texans bear the cost of health care for the uninsured. Uninsured Texans include moderate- and low-income wage earners, younger Texans and children in low-income families.[5]

Texas leads the nation in its share of the total population without health insurance. More than 5.7 million Texans, or 24.5 percent of the state's population, were uninsured in 2006. This figure included nearly 1.4 million children, or about 21.2 percent of all Texans under the age of 18.[6]

Determining the rate of uninsured in counties and economic regions is difficult. Estimates are limited by the information collected and provided by the U.S. Census Bureau. The Census Bureau did, however, provide county-level estimates for 2000. These indicated that the High Plains had slightly higher rates of uninsured than the state as a whole. Nearly one in five High Plains residents (19.8 percent) were uninsured, compared to 19 percent of all Texans. Similarly, 20.7 percent of those under the age of 18 in the region were uninsured, compared to 19.9 percent of all young Texans.[7] From 2000 to 2006, the share of uninsured Texas residents increased by 9.4 percent.[8]

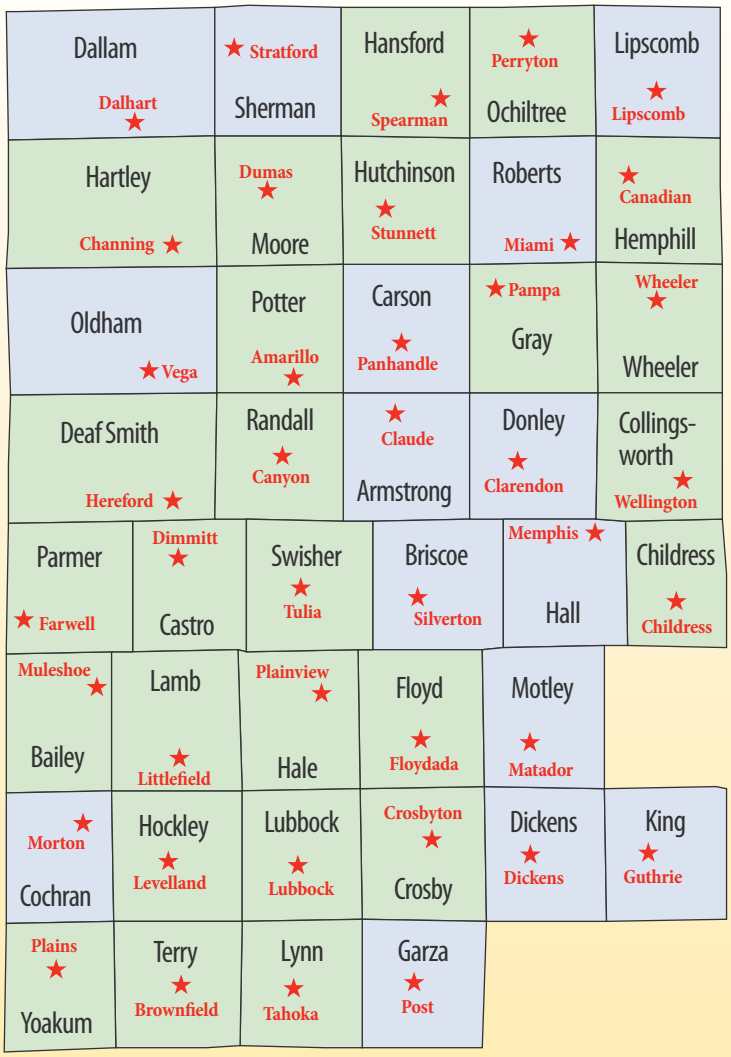
In 2005, the Texas Comptroller's office and the U.S. Census Bureau reported estimates of the uninsured in various Texas metropolitan areas including Lubbock. At that time, 22.1 percent of the residents of the Lubbock metro

area were uninsured at some time between 2001 and 2003. The Texas-wide uninsured rate was 24.7 percent over the same period.[9]

Nationally, the uninsured cite cost as the most common reason for lacking coverage.[10] According to the Kaiser Family Foundation, health premium costs for family coverage rose by an average of 6.1 percent from 2006 to 2007, with the average family premium reaching $12,106 annually. Workers were

Exhibit 38

High Plains Counties Without an Acute Care or Psychiatric Hospital



Source: Texas Department of State Health Services.

Exhibit 39

High Plains Region Hospital Districts

District Name
Amarillo Hospital District
Booker Hospital District
Caprock Hospital District
Castro County Hospital Districts
Childress County Hospital District
Cochran Memorial Hospital District
Collingsworth County General Hospital District
Dallam-Hartley County Hospital District
Darrouzett Hospital District
Deaf Smith Hospital District
Donley County Hospital District
Farwell Hospital District
Follett Hospital District
Garza Hospital District
Hall County Hospital District
Hansford County Hospital District
Hemphill County Hospital District
Higgins-Lipscomb Hospital District
Hutchinson County Hospital District
Lockney General Hospital District
Lubbock County Hospital District
Lynn County Hospital District
Moore County Hospital District
Motley County Hospital District
Muleshoe Area Hospital District
North Wheeler County Hospital District
Ochiltree Hospital District
Parmer County Hospital District
South Wheeler County Hospital District
Stratford Hospital District
Swisher Memorial Hospital District
Terry County Memorial Hospital District
Texhoma Hospital District

Source: Texas Legislative Council.

expected to contribute $3,281 or 27.1 percent toward that coverage. Since 2001, health insurance premiums have outpaced other economic measures by increasing 78 percent, while inflation rose by just 17 percent and worker's earnings by 19 percent.[11]

The Comptroller's 2005 report found that 59 percent of the uninsured population had incomes below 200 percent of the federal poverty line.[12] Poverty rates for the High Plains region were similar to that for Texas as a whole. In 2005, 17.6 percent of the region's residents lived in poverty, compared to 17.5 percent of all Texans; 24.3 percent of the region's residents under the age of 18 lived in poverty, compared to 24.7 percent of the state's children (**Exhibit 40**).

Access

As noted above, the largely rural character of the High Plains region and its dispersed population mean that many area residents live great distances from health care facilities. Access to health care also is hampered by shortages of various health care providers. To overcome these obstacles, the region uses telemedicine and telepharmacy to shorten distances and offer preventative care.

Telemedicine

Telemedicine — the provision of medical consultations and other services through telecommunications equipment — can be used to bridge distances and increase access to health care for persons living in Medically Underserved Areas (MUAs) and other underserved areas.

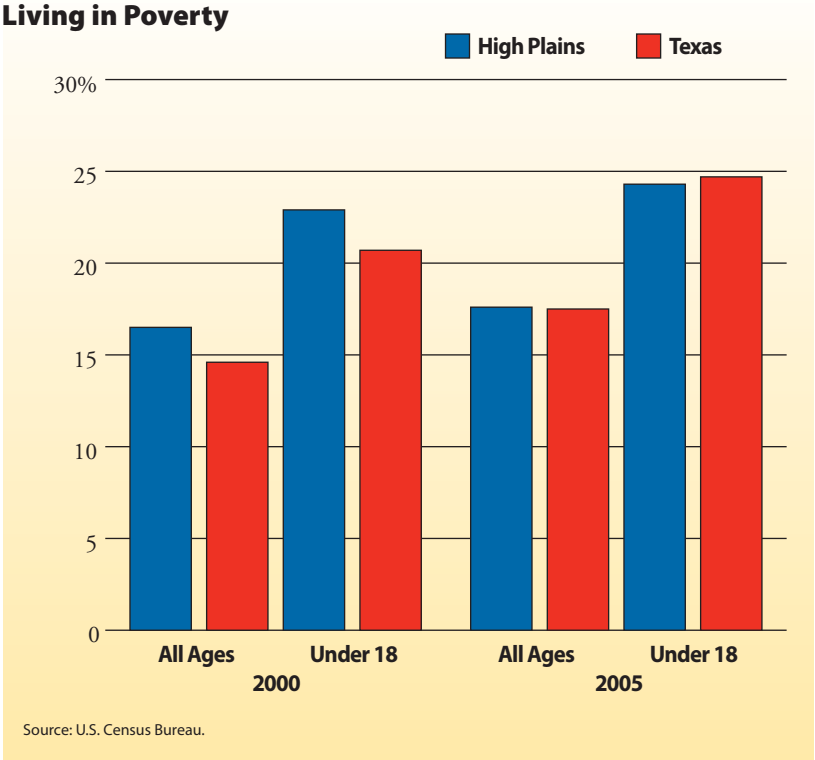
MUAs are those having a shortage of personal health services based on a formula that

considers population, poverty rate, health-care indicators and the number of primary-care physicians per 1,000 residents. In the High Plains, 27 of the region's 41 counties meet the requirements for federal designation as MUAs; 23 counties qualify as Health Professional Shortage Areas (HPSAS).[13] The U.S. Department of Health and Human Services defines HPSAs as geographic areas with a ratio of at least 3,500 residents per physician and offering limited access to primary health care resources in surrounding areas. In 2004, 10 High Plains counties had no doctor at all.[14]

Telemedicine reduces travel costs for patients and doctors and removes a barrier for patients who have trouble traveling, such as persons with disabilities and the elderly. Telemedicine has been particularly useful in improving access to specialty care, since rural areas mainly face shortages of medical specialists. Telemedicine also has made it easier for patients to receive follow-up care for burn injuries and chronic diseases.[16]

Exhibit 40

Percent of High Plains and Texas Populations Living in Poverty



Source: U.S. Census Bureau.

The Texas Tech University Health Sciences Center (TTUHSC) provides medical services to rural areas in the High Plains region using 'TeleDoc,' a portable integrated unit that provides live interactive video consultations with doctors for patients at remote sites. Recent versions of 'TeleDoc' use desktop computer technology to provide face-to-face links between patients and doctors.[17]

TTUHSC telemedicine serves about 300 patients a month in rural west Texas and at west Texas prison sites. Patients can access telemedicine at rural clinics, small rural hospitals, school clinics and at a geriatric center.

Telemedicine has made it easier for patients to receive follow-up care for burn injuries and chronic diseases.

Telemedicine and Medical Care for the Children of Hart ISD

Hart has a population of about 1,200. Hart Independent School District serves about 440 students. The lone medical professional in town is the school nurse. To obtain medical care for the children of Hart, TTUHSC and Hart ISD have partnered to offer weekly on-site visits by medical professionals at the school clinic, as well as a weekly pediatric telemedicine clinic. In January 2007, TTUHSC began providing dietician services through telemedicine, offering obesity counseling to 14 Hart ISD students.[15]

Telepharmacy

Telepharmacy allows pharmacists to dispense prescriptions and provide patient consultations to underserved or remote areas. In the High Plains, one program does this through video links.

Lubbock's Texas Tech School of Pharmacy operates a telepharmacy project in tiny Turkey, Texas (population 494), 75 miles away. The program operates similarly to Texas Tech's telemedicine program, with university pharmacists counseling patients and supervising the dispensing of prescriptions through video links. The project saves its patients, many of whom are elderly, travel time to the nearest retail pharmacy, some 35 miles away. In January 2008, the project expanded to include Earth, Texas (population 1,109).[18]

Preventative care can identify existing health problems early enough to treat them effectively.

Preventative Health Care

While traditional medical care focuses on identifying and treating health problems, preventative care focuses on *preventing* health problems from occurring. Preventative care can identify existing health problems early enough to treat them effectively. It can also include smoking cessation and wellness programs.

The TTUHSC School of Nursing operates a smoking cessation informational kiosk at the Larry Combest Community Health and Wellness Center in Lubbock. The kiosk provides an interactive tutorial on smoking cessation in both English and Spanish.[19]

Using a National Institute of Health grant, the nursing school instituted a program to combat childhood obesity at Harwell Elementary in Lubbock. The program educates students and parents on the benefits of healthy eating. It provides school exercises as well as food tastings to help students broaden their view of healthy food.[21]

"Healthy Lubbock," a communitywide initiative of TTUHSC's Garrison Institute on Aging (GIA), sponsored a "Get Fit Lubbock" program in September 2007. "Healthy Lubbock" is intended to help families become healthy by eating nutritious food and exercising together.

"Get Fit Lubbock" is a 12-week competitive team program designed to help promote fitness and weight-loss. Its mission is to promote healthy lifestyles in the community and improve participants' health and fitness. The program includes exercise and weight-loss

Senior House Calls

The TTUHSC School of Nursing operates a nurse practitioner clinic in Lubbock. The clinic serves the entire community and provides a safety net for residents of limited means or without insurance. It provides primary care, a diabetes education center and "Senior House Calls."

The "Senior House Calls" program provides primary health care services at home to senior citizens. These services include the treatment and management of acute and chronic illnesses including: hypertension, heart failure, diabetes, dementia, Alzheimer's and depression. The "Senior House Calls" team establishes and coordinates care between families, community services, home health and hospice services.[20]

Meals and Smiles Delivered to Seniors

A state agency, a city department and national and local charities are working together to bring hot meals and a smile to homebound senior citizens in the Amarillo area. The United Way, the Panhandle Area Agency of Aging, the city of Amarillo and the Lee Bivins Foundation of Amarillo worked together to create FoodNet, a service that delivers meals to lower-income senior citizens. Begun in October 2005, FoodNet provides hot, nutritious meals for people who are unable to leave their homes or prepare food by themselves. On many days, these deliverers are the only visitors the homebound seniors may see. The program serves more than 100 people in Potter and Randall counties and continues to expand. The meals are delivered at no cost to seniors.[22]

activities, including support from local health and fitness professionals.

More than 1,200 people throughout Lubbock have participated in "Get Fit Lubbock," chalking up a total weight loss of about 5,700 pounds and a total of 43,000 hours of activity.

GIA is working to expand the program by September 2008 to include more of the community by preparing bilingual materials for its events. GIA also is developing a system to provide local restaurants with "Get Fit" designations, to help residents make healthy food choices while dining out.

GIA also sponsors an annual "Healthy Lubbock" day at a local park with activities and health information for the entire family including blood pressure, diabetes and cholesterol screenings.[23]

Nursing Shortage

According to the Texas Center for Nursing Workforce Studies, Texas will have an estimated nursing shortage of almost 22,000 in 2008, increasing to about 71,000 by 2020.[24] The center also has cited a lack of nursing faculty as one cause of the shortage of nurses in the state.[25]

In an effort to increase the number of nurses and nursing educators, the TTUHSC School of Nursing is beginning a Doctorate of Nursing Practice program in 2008. The program will build a career path for nurses to achieve leadership positions in health care administration, clinical practice and research, and expand the base of professionals available to teach nursing.[26]

Brain Bank

In 2007, the TTUHSC's Garrison Institute on Aging established a unique health research project, the "Brain Bank Program," to provide tissue samples for current and future research into dementia and related studies.

The Brain Bank provides free brain autopsies to confirm clinical diagnoses of dementia, and collects, banks and provides brain tissue to qualified scientific researchers studying dementia-related disease. GIA Brain Bank researchers hope to understand the origins of neurodegenerative disease and improve the treatment and care of dementia.[27]

Restoration of Crosby for Landmark

Stop by the visitor's center at the Prairie Ladies Multi-Cultural Center in Crosbyton and enjoy a malt or milkshake while planning your tour of the town. Opened in 2006, the Cultural Center has a lunch counter and soda fountain, a visitor's center, a bus terminal, conference rooms, offices and a stage for performances. The center's building was constructed in 1908; as the Crosbyton Inn, it was the area's first hotel. Over the next 50 years, it housed a drugstore, doctors' offices and apartments. In the 1990s, the city of Crosbyton and the Prairie Ladies Club launched a fund-raising campaign to renovate the building and bring more jobs and businesses to the downtown area. Working with the Rio Blanco Heritage Foundation, and with money from the Texas Department of Transportation Enhancement Grant program, the city dedicated the new center in 2006.[28] The restoration was aided by more than $450,000 in grants.[29]

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[25] Texas Center for Nursing Workforce Studies, Texas Department of State Health Services Center for Health Statistics and the Statewide Health Coordinating Council, Texas Center for Nursing Workforce Studies Advisory Committee, *Professional Nursing Education in Texas, Demographics and Trends: 2006* (Austin, Texas, October 2007), p. 39, http://www.dshs.state.tx.us/chs/cnws/2006ProfNrsgEdRpt.pdf. (Last visited April 9, 2008.)

[26] Interview with Christy Meriwether; and Texas Tech University Health Sciences Center, "Doctorate of Nursing Practice," http://www.ttuhsc.edu/son/doctorate/. (Last visited April 9, 2008.)

[27] Interview with Christy Meriwether; and Texas Tech University Health Sciences Center, "GIA Brain Bank Program," http://www.ttuhsc.edu/centers/aging/giabrainbank.aspx. (Last visited April 9, 2008.)

[28] Preserve America, "Preserve America Community: Crosbyton, Texas," http://www.preserveamerica.gov/09-09-07PAcommunity-crosbytonTX.html. (Last visited April 1, 2008.)

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Education

Education is the cornerstone of economic growth. Without a strong educational foundation and a well-educated work force, no community, region or state can expect to compete in the global economy. The High Plains region ranks above the statewide average on many educational indicators.

Public Education

The High Plains region is home to 3.3 percent of Texas' public elementary and secondary students. The region has 110 public school districts with 436 campuses as well as four charter districts and their four campuses. High Plains schools provide early childhood through Grade 12 education for nearly 152,000 students.[1]

The region's number of students has changed little in the last five years, rising by just 0.7 percent between the 2001-02 and 2006-07 school years, for a net gain of about 1,000 students. The state student population, by contrast, rose by 10.4 percent over the same period.[2]

In 2006-07, the region's largest independent school districts (ISDs) by enrollment were Amarillo ISD in Potter County, with more than 30,000 students, followed closely by Lubbock ISD in Lubbock County, with nearly 29,000 students. The smallest districts were Grandview-Hopkins in Gray County, with 24 students, and Darrouzett in Lipscomb County, with 74 students.[3]

As with the state as a whole, the region's public school student population has become

PHOTO: Stephanie Johnson/Lubbock ISD/Iles Elementary

Iles Elementary School in Lubbock, Texas

Exhibit 41

Ethnicity of Public School Students, High Plains Region

Ethnicity	2001-02	2006-07
White	50.0%	45.8%
Hispanic	41.6	45.4
Black	7.1	7.2
Asian/Pacific Islander	1.0	1.2
Native American	0.3	0.4

Source: Texas Education Agency.

The High Plains exceeded the state average for Exemplary ratings and had a higher share of Recognized districts than the state.

more diverse in recent years (**Exhibit 41**). It is still less ethnically diverse than the statewide student population, however, which is now 35.7 percent White, 46.3 percent Hispanic, 14.4 percent Black, 3.3 percent Asian/Pacific Islander and 0.3 percent Native American.[4]

Despite its negligible overall enrollment growth, the High Plains region has seen an increase in its share of economically disadvantaged students. In 2001-02, nearly 77,000 students, or 51 percent of total enrollment, were identified as economically disadvantaged; in 2006-07, about 85,000 students, or 56.1 percent of the region's students, were classified as economically disadvantaged. This was slightly higher than the statewide average of 55.4 percent.[5]

Accountability

The region's districts compared favorably with statewide averages in the 2007 district accountability ratings established by the Texas Education Agency (TEA). The High Plains exceeded the state average for Exemplary ratings and had a higher share of Recognized districts than the state; in addition, the region's districts fared better than the statewide average for the Academically Unacceptable rating (**Exhibit 42**).[6]

As of August 2007, three of the region's 114 districts were rated Exemplary; 26 were rated Recognized; 84 were rated Academically Acceptable; and one was rated Academically Unacceptable.[7]

The High Plains region also exceeded statewide averages in its number of campuses rated Exemplary and Recognized, and had a smaller share of campuses rated Academically Unacceptable than the state as a whole (**Exhibit 43**).[8]

Of 440 total campuses in the region's districts, including charter schools, 36 were rated Exemplary, 142 were Recognized, 223 were Academically Acceptable, 11 were Academically Unacceptable and 28 were listed as "Not Rated: Other."[9]

Of the region's four charter districts, one was rated Exemplary, two were Academically Acceptable and one was rated Academically Unacceptable. Each of these districts has one campus, which was rated the same as its district.[10]

Among the districts that teach all grade levels, Texhoma had the highest percentage of students passing all TAKS tests, at 96 percent;

Exhibit 42

2007 Accountability Ratings, School Districts, High Plains Region vs. Statewide

Rating	High Plains Districts	Statewide Districts
Exemplary	2.6%	2.2%
Recognized	22.8	17.8
Academically Acceptable	73.7	75.3
Academically Unacceptable	0.9	4.6
Not Rated: Other	0.0	0.2

Note: "Not Rated: Other" includes campuses such as alternative education programs or early childhood education centers. These data include charter districts.
Numbers may not total due to rounding.
Source: Texas Education Agency.

excluding charters. TEA reported the statewide average as 67 percent. (An average for the High Plains region is unavailable since TEA reports district data only as percentages.)[11]

Within the High Plains region, the percentage of graduating students who took the SAT or ACT college entrance exams reached 100 percent in Cotton Center, Nazareth, Shamrock and Southland ISDs; the statewide average was 65.8 percent. Of the 95 High Plains districts for which data are available, 56 had shares above the state average and 39 had lower percent shares.[12]

The highest percentage of students taking the tests who scored at or above the criterion score that TEA uses to measure college readiness was 50 percent in Wheeler ISD, which also had 90.9 percent of its graduating students take at least one of the tests. Statewide, 27.1 percent of the students who took at least one of the tests scored at or above the criterion score.[13]

Exhibit 43

2007 Accountability Ratings, School Campuses, High Plains vs. Statewide

Rating	High Plains Campuses	Statewide Campuses
Exemplary	8.2%	8.0%
Recognized	32.2	29.2
Academically Acceptable	50.6	51.0
Academically Unacceptable	2.5	3.4
Not Rated: Other	6.6	8.4

Note: "Not Rated: Other" includes campuses such as alternative education programs or early childhood education centers. These data include charter campuses.
Numbers may not total due to rounding.
Source: Texas Education Agency.

Outcomes

According to the 2000 Census, 75 percent of High Plains residents over the age of 25 had a high school diploma, a GED or some higher education, only slightly below the state average of 75.7 percent.[14]

In the 2005-06 school year, 8,861 students graduated from the region's public high schools, about 3.7 percent of the statewide total in that year. Lubbock ISD had the largest number of graduates (1,647) while Guthrie and Lazbuddie ISDs tied for the smallest number, with just three graduates each.[15]

About 11.8 percent of the region's students graduated under the Distinguished Achievement plan, the state's most stringent graduation plan; 61.3 percent under the Recommended plan, which is the required plan; and 26.9 percent under the Minimum plan, a less-stringent graduation plan that requires both parental and school approval**,** or under an Individual Education Plan offered through Special Education **(Exhibit 44)**. Among the region's non-charter districts, Nazareth, Texline, McLean, Gruver, Hartley, Amherst, Spade, Adrian and Texhoma had 100 percent of their students graduate under the Distinguished Achievement or Recommended plan.[16]

According to TEA, 92 of the region's 104 non-charter districts serving high school students had dropout rates lower than the statewide average of 3.7 percent. In the 62 High Plains districts, including charters, for which student totals are available, 1,379 Grade 9-12 students dropped out during the 2005-06 school year.[17]

School Finance

In the 2005-06 school year, the High Plains region's total school spending per pupil, including debt service, averaged $9,432, about 2 percent lower than the statewide average of $9,629.[18]

In all, 39 districts in the region were 20 percent or more above the statewide spending average, while only 11 districts, including charters, fell more than 20 percent below the statewide average.[19]

Excluding charter districts and Boys Ranch ISD, which do not receive funding from local tax revenue, the region's lowest total tax rate in 2006 was in Kelton ISD, at 90 cents per $100 of property value. Muleshoe and Shallowater ISDs levied the highest rate, at $1.67. The statewide average was $1.452; only 21 districts in the High Plains region had higher rates.

The High Plains region gained a smaller percentage of its school revenue from local taxes than the statewide average, at 43.8 percent versus 48.3 percent. Guthrie ISD obtained the largest percentage of its school funding from local taxes (85.9 percent), while Morton ISD had the lowest share (12.3 percent). The percentage of revenue from other local sources, such as transfers and tuition, however, was higher in the region than statewide, at 7 percent compared to 6.3 percent. Ralls obtained 55.6 percent of its revenue from other local sources, for the highest share in the region, while Amherst ISD had the lowest share for non-charter schools, at 1.6 percent.

Nazareth ISD had the lowest property wealth per pupil in 2006, at $96,747, while Fort Elliott led the region with $7,745,954 per pupil. The regional average was $320,157, 4.9 percent higher than the statewide average of $305,208. As noted above, Texas law requires districts with relatively high property wealth per pupil to share it with less-wealthy

Texas Economic Development Act

The Texas Economic Development Act (Chapter 313 of the Tax Code), as enacted by the 2001 Legislature, allows school districts to attract new taxable property by offering tax credits and eight-year limitations on appraised values of property for the maintenance and operations portion of the school district property tax. The Comptroller's office adopts rules to help school districts implement Chapter 313 and also makes nonbinding recommendations to school districts on proposed projects.

Exhibit 44

2006 High School Graduates, High Plains Region vs. Statewide

Graduation Plan	High Plains	Statewide
Distinguished Achievement	11.8%	10.1%
Recommended	61.3	65.5
Minimum/IEP*	26.9	24.3
Distinguished Achievement & Recommended as Percent of Total	**73.1%**	**75.7%**

*IEP: An individual education plan for students in Special Education.
Note: Numbers may not total due to rounding.
Source: Texas Education Agency.

Museums and the Arts

The High Plains region is home to a number of museums, performing arts organizations and film commissions.

Museums of Arts, Science and History, Performing Arts Organizations and Film Commissions

County Name	City	Venue Name
Armstrong	Claude	Armstrong County Museum and Gem Theatre
Carson	Panhandle	Carson County Square House Museum
Dallam	Dalhart	XIT Museum
Donley	Clarendon	Saints' Roost Museum
Lubbock	Lubbock	Buddy Holly Center, Museum of Texas Tech University, National Ranching Heritage Center, Science Spectrum Museum, Lubbock Arts Alliance
Potter	Amarillo	Cadillac Ranch, Amarillo Museum of Art, American Quarter Horse Heritage Center and Museum, Don Harrington Discovery Center, Amarillo Symphony, Lonestar Ballet, Amarillo Film Commission, Texas Panhandle Film Commission
Randall	Canyon	Panhandle Plains Historical Museum
Wheeler	Mobeetie	Old Mobeetie Texas Association Museum

Sources: 2006-2007 Texas Almanac, Armstrong County Museum and Roadside America.

districts through a process called "equity transfers." In 2006, 23 districts in the High Plains region transferred $65.5 million, an average of $433 per pupil, to other districts; the statewide average was $286 per pupil. Denver City transferred the largest amount ($14.7 million), while Fort Elliott ISD had the highest per pupil transfer at $43,804.

Hedley ISD received nearly 70 percent of its revenue from the state in 2006, the highest share among districts that also receive some part of their revenue from local taxes. Guthrie ISD received the smallest state share, 4.1 percent. The regional average for 2006 was 36.3 percent, slightly higher than the statewide average of 33.9 percent. The region also received a higher share of federal funds than the statewide average, at 12.8 percent versus 11.5 percent.[20]

Teachers

The average High Plains teacher salary in 2006-07 was $41,448, 7.7 percent below the statewide average of $44,897. Guthrie ISD had the highest average salary, at $48,883. (Note that a district's average salary can vary due to the length of teachers' tenure as well as its wage levels; in other words, District A may have a higher average salary than District B because it has a higher percentage of experienced teachers, even though its wage levels for various years of experience may be lower than District B's.)[21]

Average teacher salaries in the High Plains region rose by 12 percent from 2001-02 to 2006-07, compared with a statewide average increase of 14.4 percent. South Plains ISD had the highest percentage increase over this period, at 39 percent.[22]

The region's teacher salaries accounted for 31.7 percent of total district expenditures from all funds in 2005-06, slightly higher than the statewide average of 29.1 percent. The expenditure share within the region was highest at 42.5 percent for Higgins ISD. In all, 89 districts in the region devoted a higher percentage of expenditures to teacher salaries than the statewide average, while 27 had lower percentages.[23]

The region's teacher turnover rate from 2005-06 to 2006-07 was 14.3 percent, slightly below the statewide average of 15.6 percent. Kelton, Spring Creek, Walcott and Wellman-Union ISDs had no teachers leave. In all, 20 school districts in the region had teacher turnover rates in excess of 25 percent in 2006-07, while 22 districts had turnover rates of less than 10 percent.

In 2006-07, the region had a lower average number of students per teacher, at 12.8 versus a statewide average of 14.7. Guthrie ISD had the smallest number of students per teacher, at 4.9.[24]

Students from the High Plains region are more likely to attend a Texas institution within their region than students throughout the state.

Higher Education

The High Plains region has nine institutions of higher education (**Exhibit 45**).

These institutions administer 17 campuses across the region. Ten of the region's 41 counties have at least one higher education campus (**Exhibit 46**).

The High Plains region has two public universities, Texas Tech University (TTU) in Lubbock and West Texas A&M University (WAMU) in Canyon in Randall County. In addition to its main campus in Lubbock, TTU has a teaching site in Amarillo in Potter County as well as other sites outside the region.[25]

High Plains has one health-related institution, Texas Tech University Health Science Center (TTUHSC) in Lubbock; the center also operates a regional academic health center in Amarillo, as well as in Midland-Odessa and El Paso. Both the Lubbock and Amarillo centers offer schools of allied health sciences, medicine and pharmacy; in addition, the Lubbock campus has schools of biomedical sciences and nursing.[26]

The High Plains region has four community college districts — Amarillo, Clarendon, Frank Phillips and South Plains. In addition to their main campuses, these districts operate six satellite campuses.[27] These colleges offer hundreds of workforce education and training programs in a wide variety of technical and academic subjects. Colleges work collaboratively with local businesses to tailor training programs to meet employer and regional demands.

The region also has two private universities, Lubbock Christian University (LCU) in Lubbock and Wayland Baptist University (WBU) in Plainview in Hale County. WBU also has campuses in Amarillo and Lubbock as well as additional sites in Texas, other states and Kenya.[28]

Students from the High Plains region are more likely to attend a Texas institution within their region than students throughout the state. In fall 2005, 20.1 percent of students from the High Plains region who were attending a Texas public university did so outside the region; statewide, 36.3 percent of students attended a university outside their home region. About 3.6 percent of students from the High Plains region attending two-year colleges were attending

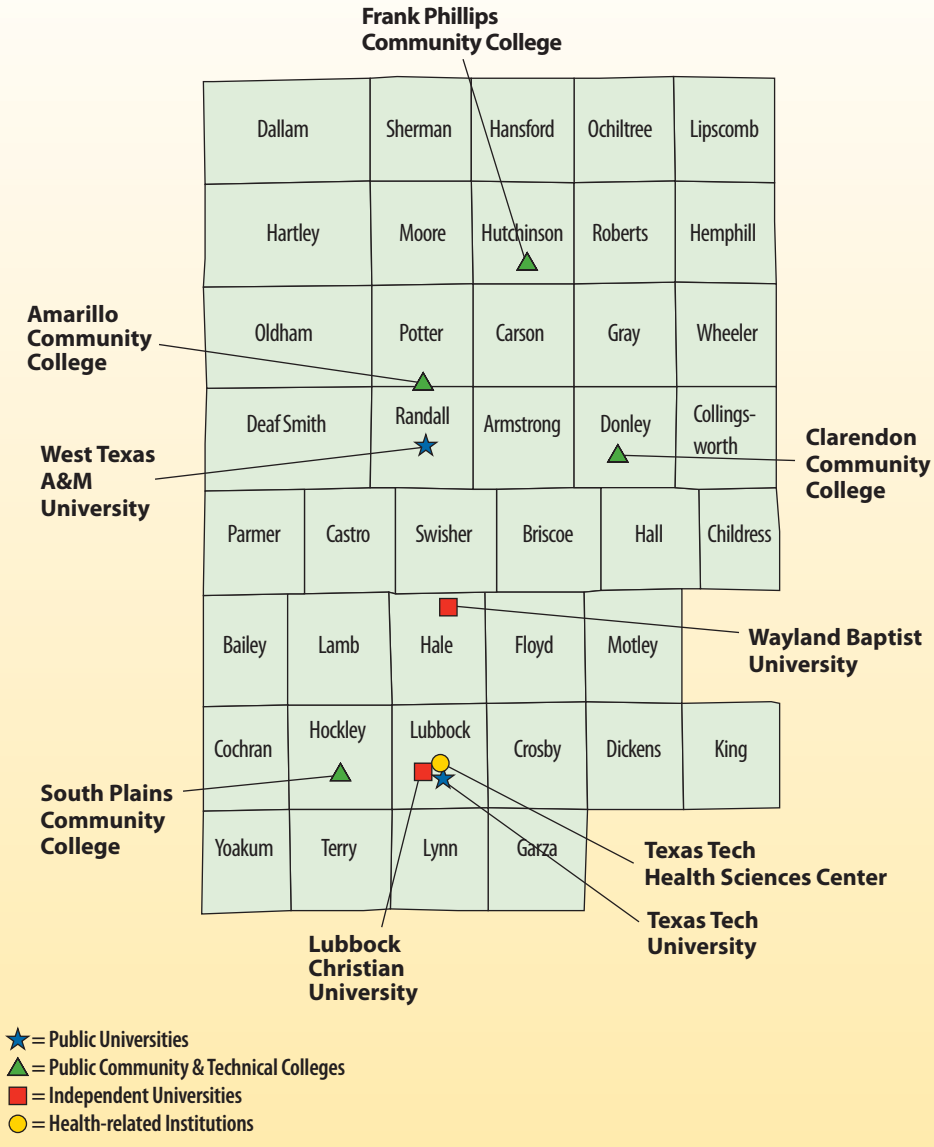
a two-year college outside the region, compared with 5.6 percent statewide.[29]

Enrollment

In fall 2005 (most recent available data), a larger share of High Plains residents were enrolled in a Texas public two- or four-year institution than the state average (4.4 percent versus 4.2 percent). The region also exceeded the state average for its share of the population at two-year Texas public colleges (2.5 percent versus 2.3 percent statewide) and tied the

Exhibit 45

Institutions of Higher Education, High Plains Region



Source: Texas Higher Education Coordinating Board.

Exhibit 46

Higher Education Campuses High Plains Region

Institution	City	County
Amarillo College	Amarillo	Potter
Amarillo College Moore County Center - Dumas	Dumas	Moore
Clarendon College	Clarendon	Donley
Clarendon College – Pampa Center	Pampa	Gray
Frank Phillips College	Borger	Hutchinson
Frank Phillips College at Perryton	Perryton	Ochiltree
South Plains College	Levelland	Hockley
South Plains College – Byron Martin Advanced Tech Center	Lubbock	Lubbock
South Plains College – Plainview Extension Center	Plainview	Hale
South Plains College – Reese Center Extension	Lubbock	Lubbock
Texas Tech University	Lubbock	Lubbock
Texas Tech University Teaching Site	Amarillo	Potter
Texas Tech Health Sciences Center Regional Academic Health Center	Amarillo	Potter
Texas Tech University Health Sciences Center	Lubbock	Lubbock
West Texas A&M University	Canyon	Randall
Lubbock Christian University	Lubbock	Lubbock
Wayland Baptist University	Plainview	Hale

Source: Texas Higher Education Coordinating Board.

state average for its share of the population at Texas public universities (1.9 percent).[30]

The region fell slightly below the state average in its share of 2003-04 high school graduates who enrolled in a Texas public university in the fall after graduation, but exceeded the state average in its percentage of graduates who enrolled at public two-year colleges in the following fall. From 2000-01 to 2004-05, the region increased its share of recent graduates enrolled in higher education institutions from 48.8 to 53.2 percent (**Exhibit 47**).[31]

In fall 2007, 66,252 persons were enrolled in High Plains public and private colleges and universities. Enrollment in public and private four-year universities and health-related institutions accounted for 67.2 percent of the total, while the remaining 32.8 percent were enrolled in two-year institutions.

The region's largest higher education institution by enrollment is TTU, with 28,408 students enrolled in fall 2007. The smallest institution is Clarendon Community College, with 1,123 students enrolled in fall 2007.[32]

Total enrollment in the region's higher education institutions rose by 15.9 percent between 2000 and 2007. Community college enrollment rose by 22.2 percent, compared to 13 percent for universities. In numbers, universities added 5,135 students while community college enrollment increased by 3,947. For the state as a whole,

Dancing in Lipscomb County

About 40 people live in the town of Lipscomb, but once a month, from June to September, the population booms as hundreds of people gather at the town's dance platform. The owners of the Naturally Yours Art Gallery built the wooden platform after they heard stories about platform dances that used to be held by the county's farmers and ranchers. A local artist and rancher designed the platform and sold bench seats to raise money for its construction.[33]

It took a few years for word to spread about the dances. Now musicians from around the state come to play traditional dance music such as the Schottische, the two-step and the waltz. Frankie McWhorter, now deceased, was a fiddler and former member of Bob Wills' Texas Playboys. McWhorter's expertise with the fiddle drew in dancers, and attendance has grown to more than 500 people a month. Lipscomb residents pitch in to prepare and serve barbeque dinner to the dancers.[34]

university enrollment increased by 18.4 percent, while enrollment at two-year institutions, including community colleges, rose by 32.4 percent.[35]

Among the region's institutions, TTU had the largest enrollment growth between 2000 and 2007, adding 4,209 students, while TTUHSC enjoyed the highest percentage growth (52.2 percent) (**Exhibit 48**).[36]

Accessibility

TTU had 13,323 first-time undergraduate applicants for its fall 2006 semester. The institution accepted 71.5 percent of them, less than the statewide average of 87.6 percent. Of the 9,522 students accepted to TTU, 23.8 percent were in the top 10 percent of their high school graduating classes, compared to 23 percent of students accepted to undergraduate institutions statewide.

WAMU had 1,661 first-time undergraduate applicants for its fall 2006 semester; the institution accepted 95.2 percent of them. Of the 1,581 who were accepted, 29.5 percent were in the top 10 percent of their high school graduating classes.[37]

Outcomes

According to the 2000 Census and the Texas Higher Education Coordinating

Exhibit 47

Public High School Graduates Entering Texas Public Higher Education in the Following Year

Enrolled in Universities

Graduating Class	High Plains	Statewide
1999-2000	21.0%	20.9%
2003-2004	22.2	24.4

Enrolled in Two-Year Colleges

Graduating Class	High Plains	Statewide
1999-2000	27.8%	29.8%
2003-2004	31.1	30.1

Not Enrolled

Graduating Class	High Plains	Statewide
1999-2000	51.2%	49.3%
2003-2004	46.8	45.4

Source: Texas Higher Education Coordinating Board.

Board, 24.1 percent of High Plains residents over the age of 25 had an associate's degree or higher; the state average was 28.5 percent. The region's share of adults over the age of 25 with a bachelor's degree or higher was 18.8 percent, compared to the state average of 23.2 percent.[38]

Because some degrees require more than four years of study, and because some students may need more time to graduate, the Texas Higher Education Coordinating Board (THECB) compares four-year and six-year graduation rates to measure university outcomes. TTU's four- and six-year graduation rates improved between fiscal 1999 and fiscal 2006, and were much higher than statewide averages for both years. WAMU's graduation rates, and particularly its six-year rate, improved from fiscal 1999 to fiscal 2006, but remained below the statewide average in both years (**Exhibit 49**).[39]

Because many community college students go on to a university to obtain a four-year degree, THECB compares three-year and six-year graduation rates to measure community college outcomes. Clarendon College had the High Plains region's highest three-year and six-year graduation rate in fiscal 2006. Amarillo, Frank Phillips and South Plains all showed considerable improvement in six-year graduation rates between fiscal 2000 and 2006. Amarillo, Clarendon and Frank Phillips

Exhibit 48

Fall Enrollment at Higher Education Institutions, High Plains Region, 2000 vs. 2007

Institution	Fall 2000 Enrollment	Fall 2007 Enrollment	Enrollment Change	Percent Change
Texas Tech University	24,199	28,408	4,209	17.4%
West Texas A&M University	6,775	7,508	733	10.8
Wayland Baptist University	5,093	4,046	-1,047	-20.6
Texas Tech University Health Sciences Center	1,719	2,616	897	52.2
Lubbock Christian University	1,617	1,960	343	21.2
Regional Total – Universities	**39,403**	**44,538**	**5,135**	**13.0**
Statewide Total – Universities	**536,113**	**634,791**	**98,678**	**18.4**
Amarillo College	8,181	9,995	1,814	22.2
South Plains College	7,432	9,297	1,865	25.1
Frank Phillips College	1,153	1,299	146	12.7
Clarendon College	1,001	1,123	122	12.2
Regional Total – Two-year Colleges	**17,767**	**21,714**	**3,947**	**22.2%**
Statewide Total – Two-year Colleges	**448,632**	**594,106**	**145,474**	**32.4%**
Regional Total – All Institutions	**57,170**	**66,252**	**9,082**	**15.9%**
Statewide Total – All Institutions	**984,745**	**1,228,897**	**244,152**	**24.8%**

Note: Enrollment data for Texas Tech University, Texas Tech University Health Sciences Center and Wayland Baptist University represent statewide enrollment, including enrollment on campuses outside the High Plains region.
Source: Texas Higher Education Coordinating Board.

colleges ranked at or above the statewide average for both three- and six-year graduation rates in fiscal 2006 (**Exhibit 50**).[40]

From fiscal 2000 to fiscal 2007, the number of degrees TTU awarded rose by 27.8 percent, to 6,144, while WAMU's count rose by 30.6 percent, to 1,463; the statewide average increase was 30.3 percent (**Exhibit 51**).[41]

Over the same period, community colleges increased their number of degrees and certificates awarded statewide by 46.9 percent. Among the four community colleges in the region, South Plains College had the sharpest increase in degrees awarded, at 129.8 percent (**Exhibit 52**).[42]

Affordability

From 2002-03 to 2007-08, TTU's annual estimated costs for one student's tuition and fees, based on 15 credit hours each semester, rose by

DID YOU KNOW?

Local taxpayers invested nearly $600 million in High Plains schools in 2006.

Exhibit 49

Four- and Six-Year Graduation Rates, High Plains Public Universities

Institution	Fiscal 1999 4-year	Fiscal 1999 6-year	Fiscal 2006 4-year	Fiscal 2006 6-year
Texas Tech University	24.0%	56.7%	34.7%	66.0%
West Texas A&M University	13.1	32.4	19.6	44.2
Statewide Average	**18.0%**	**49.2%**	**25.1%**	**57.2%**

Source: Texas Higher Education Coordinating Board.

Exhibit 50

Three- and Six-Year Graduation Rates, High Plains Community Colleges

Institution	Fiscal 2000 3-year	Fiscal 2000 6-year	Fiscal 2006 3-year	Fiscal 2006 6-year
Amarillo College	9.4%	29.3%	12.1%	31.6%
Clarendon College	*	40.7	36.3	38.7
Frank Phillips College	18.2	23.7	26.5	37.0
South Plains College	14.6	26.1	11.4	28.4
Statewide Average	**10.8%**	**25.7%**	**12.1%**	**30.6%**

* Fewer than 20 students started in this group.
Source: Texas Higher Education Coordinating Board.

Exhibit 51

Degrees Awarded Public Universities, High Plains vs. Statewide

Institution	Fiscal 2000	Fiscal 2007	% Increase
Texas Tech University	4,807	6,144	27.8%
West Texas A&M University	1,120	1,463	30.6
Statewide	**78,970**	**102,897**	**30.3%**

Source: Texas Higher Education Coordinating Board.

Exhibit 52

Degrees and Certificates Awarded, High Plains Region Community Colleges

Institution	Fiscal 2000	Fiscal 2007	% Increase
Amarillo College	946	1,188	25.6%
Clarendon College	113	240	112.4
Frank Phillips	157	125	-20.4
South Plains College	531	1,220	129.8
Statewide Average	**37,395**	**54,916**	**46.9%**

Source: Texas Higher Education Coordinating Board.

Exhibit 53

Public University Revenue, High Plains Region

Texas Tech University

Revenue Source	Fiscal 2004	Fiscal 2007	% Increase
Tuition and fees	$139,302,765	$171,631,138	23.2%
State appropriations	145,279,324	162,339,737	11.7
Federal funds	41,406,291	45,918,266	10.9
Institutional funds	56,729,442	76,858,697	35.5
Total Revenue	**$382,717,822**	**$456,747,838**	**19.3%**

West Texas A&M University

Revenue Source	Fiscal 2004	Fiscal 2007	% Increase
Tuition and fees	$16,116,552	$20,512,059	27.3%
State appropriations	31,901,034	36,247,434	13.6
Federal funds	10,757,935	10,907,329	1.4
Institutional funds	10,314,451	11,437,790	10.9
Total Revenue	**$69,089,973**	**$79,104,612**	**14.5%**

Statewide

Revenue Source	% Increase
Tuition and fees	45.7%
State appropriations	11.3
Federal funds	17.6
Institutional funds	41.5
Total Revenue	**26.6%**

Note: Excludes "constitutional funds," which are used for capital purchases. Tuition and fee figures are net of scholarship discounts and allowances. Numbers may not total due to rounding.
Source: Texas Higher Education Coordinating Board.

about 79 percent, to $7,083. WAMU's tuition and fees rose by 61 percent, to $4,794. The statewide average for undergraduate universities rose by about 62 percent, to $5,569.

For the 2007-08 school year, the estimated annual cost of tuition and fees, books and supplies, room and board, transportation and personal expenses at TTU (based on

15 credit hours in both fall and spring) was $18,464, 8.6 percent higher than the statewide average of $16,995. The 2007-08 total cost of attending WAMU was $14,260, 16.1 percent below the statewide average.

The cost of private universities in the region has remained lower than average. Estimated tuition and fee costs for LCU and WBU for 2007-08 were $14,290 and $11,350, respectively, compared to a statewide average of $16,934. LCU's costs rose by 30 percent between 2002-03 and 2007-08, while WBU's rose by 31 percent. Over the same period, the statewide average costs for private universities rose by 42 percent.

From 2002-03 to 2007-08, resident tuition and fee increases at the region's four community colleges ranged from a low of $212 (about 13 percent) at South Plains College to a high of $990 (about 92 percent) at Clarendon College; the statewide average increase for community colleges was $519, about 46 percent. In 2007-08, tuition and fees in the region were lowest at Amarillo College, at $1,614, and highest at Frank Phillips College, at $2,416.[43]

The total cost of attending the High Plains region's community colleges in 2007-08, including tuition and fees, books and supplies, room and board, transportation and personal expenses, ranged from $8,020 for South Plains College to $9,944 for Clarendon College; the statewide average for community colleges was $10,456.[44]

Funding

Total revenue for TTU, including tuition and fees, general revenue appropriations, federal funds and institutional funds, rose by 19.3 percent from fiscal 2004 to fiscal 2007, compared to a statewide average rise for public universities of 26.6 percent. WAMU's total revenues increased by 14.5 percent over the same period (**Exhibit 53**).[45]

Total appropriations for community colleges in the 2004-05 biennium declined for all of the region's community colleges except Frank Phillips College. In the 2006-07 biennium, South Plains College regained its loss. Appropriations for the 2008-09 biennium were 11.6 percent above 2002-03 biennial levels for Frank Phillips College and 9.3 percent higher for South Plains College. Statewide appropriations for all community colleges were 10.6 percent higher in 2008-09 than in 2002-03 (**Exhibit 54**).[46]

Exhibit 54

Total Appropriations for Public Community Colleges, High Plains Region

Institution	2002-03 Biennium	2004-05 Biennium	2006-07 Biennium	2008-09 Biennium	% Increase 2002-03 to 2008-09
Amarillo College	$42,487,467	$36,839,197	$40,893,709	$41,823,102	-1.6%
Clarendon College	5,429,495	4,771,960	4,983,409	5,099,276	-6.1
Frank Phillips College	5,913,559	6,075,777	6,633,195	6,602,470	11.6
South Plains College	32,674,113	30,772,071	33,599,515	35,703,626	9.3
Statewide	**$1,832,770,595**	**$1,727,910,226**	**$1,905,450,860**	**$2,027,184,433**	**10.6%**

Note: Data represent actual appropriations. These figures may be higher than the line items in the appropriations bill since they also include appropriated special-purpose funding, group health benefits and account for State Auditor Office audits. Data do not include funds provided indirectly, such as grants or financial aid from THECB.
Source: Texas Higher Education Coordinating Board.

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Conclusion

The outlook for the High Plains region is promising. Job expansion, a youthful population, abundant natural resources, innovative health care solutions and an educated citizenry will ensure that the region's economy continues to grow.

The region will nearly match the state's job growth through 2012, with Amarillo and Lubbock leading the way. The region's economy will broaden with the growth of service related industries.

And the region's young population will fill many of these new service jobs. While the region's population is similar to that of the state, the High Plains has a slightly greater share of residents under the age of 25.

The High Plains also has abundant natural resources and affordable, reliable energy. The region's infrastructure is attractive to new business and will meet the demands of industries and communities during the near future.

Health care professionals in the region have developed innovative programs to meet the challenges of such a dispersed rural population. Telemedicine and telepharmacy programs have improved health care access to residents, as has the number of new nurses graduating from schools in the region.

The success of the region's schools will meet the demands of an expanding economy. Many of the school districts in the region outperform the state and the region has affordable institutions of higher education, including Texas Tech University.

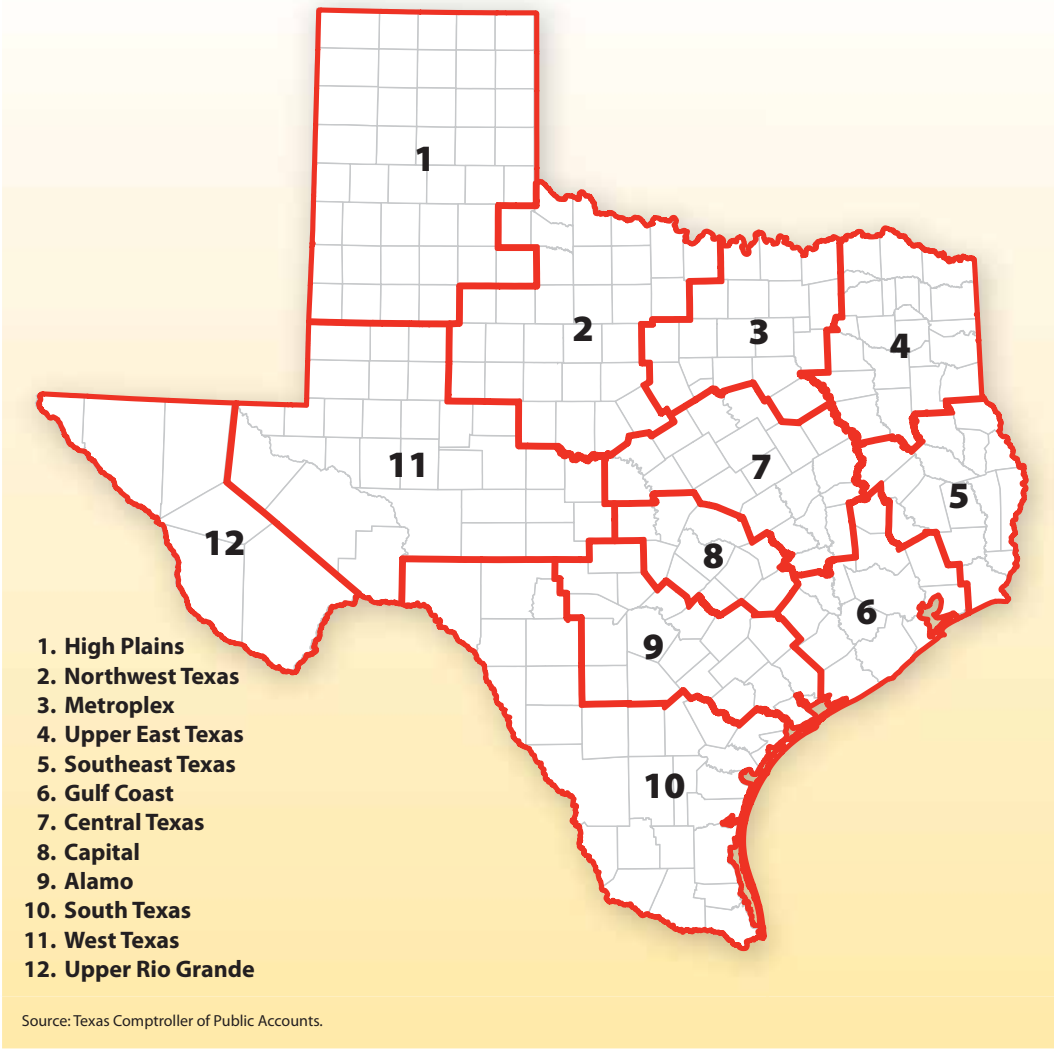
As with any other region in the state, however, the communities of the High Plains face challenges, including rising demands for water, energy and transportation; increasing health care costs; and the need for a skilled and educated work force to continue the success of the region's economy.

The Comptroller's office is ready to help the High Plains region in meeting these challenges with information and analysis. For assistance, please contact the Comptroller's Local Government Assistance and Economic Development Division at http://www.window.state.tx.us/lga/ or toll-free at (800) 531-5441, ext. 3-4679.

The Comptroller's office will continue to provide local and state leaders with detailed information in this continuing series of reports. We hope you look forward to these future publications, which will highlight the 11 remaining economic regions (**Exhibit 55**). For a statewide perspective, please see the Comptroller's *Texas in Focus: A Statewide View of Opportunities* at http://www.window.state.tx.us/specialrpt/tif.

Exhibit 55

Map of Economic Regions



Source: Texas Comptroller of Public Accounts.

Appendix – Federal and State Assistance Programs

Federal Assistance Programs

The federal government offers states, local governments and communities a number of economic and community development grants and loans. These provide funds for construction, operations and other projects needed to foster or revitalize economic development. Available funding includes:

Community Development Block Grants (State Programs) — These funds from the Department of Housing and Urban Development (HUD) are distributed to states for the expansion of economic opportunities in both urban and rural communities. For more information, please visit http://www.hud.gov/.

Community Facilities Loans and Grants — These loans and grants from the U.S. Department of Agriculture are provided to local and state governments for the construction of or improvements to community facilities. For more information, please visit http://www.rurdev.usda.gov/rhs/cf/cp.htm.

Grants for Public Works and Economic Development Facilities — These grants from the U.S. Department of Commerce are for improving the physical infrastructure of regions in economic distress to attract new business and industry. States, counties, institutions of higher education and other political subdivisions are eligible for the grants. For more information, please visit http://www.eda.gov/InvestmentsGrants/Investments.xml.

State Assistance Programs

Emerging Technology Fund — The ETF provides grants for applied research and development activities for the purposes of creating a commercialized product and acquiring new or enhancing existing research talent at institutions of higher education. The ETF seeks to establish new jobs and medical and scientific breakthroughs. Grants are awarded by the governor. The ETF has $116.6 million available for fiscal years 2008 and 2009. For more information, please visit http://www.governor.state.tx.us/divisions/ecodev/etf/.

Texas Enterprise Fund — The fund was created to provide grants to economic development projects. The governor awards these grants to projects for the purposes of infrastructure development, community development, job training programs and business incentives. Grants are used to attract new businesses and expand existing businesses. The Enterprise Fund has $224.4 million available for fiscal years 2008 and 2009. For more information, please visit http://www.governor.state.tx.us/divisions/ecodev/ed_bank/tefund.

§4a Sales Tax — This tax can be levied by cities in counties with fewer than 500,000 residents to support manufacturing and industrial development. The funds generated can be used to improve infrastructure; purchase land and buildings; or develop new businesses. For more information, please visit http://www.window.state.tx.us/taxinfo/taxpubs/tx96_302.html.

§4b Sales Tax — This tax can be levied by all cities, regardless of population, for quality-of-life improvements intended to attract or maintain businesses, such as streets and roads and related improvements. The funds may be used to improve infrastructure and build facilities including sports, entertainment and convention centers.

§4a and §4b are collectively known as the economic development sales tax. For more information, please visit http://www.window.state.tx.us/taxinfo/taxpubs/tx96_302.html.

Economic Development Refund Program — The Property Tax Division of the Comptroller's office administers this program that allocates state refunds for economic development. To be eligible, a property owner must have established a new business in a reinvestment zone or expanded or modernized an existing business located in the zone. For more information, please visit http://www.window.state.tx.us/taxinfo/proptax/.

Texas Leverage Fund — This fund allows cities that have adopted the economic development sales tax to leverage future tax revenue for the purpose of financing community projects (such as purchasing land or equipment or building public parks and entertainment facilities) and industry expansion. For more information, please visit http://www.governor.state.tx.us/divisions/ecodev/ed_bank/leverage_fund.

Texas Industry Development Program — This program, administered by the Texas Small Business Industrial Development Corporation, provides communities with funds for job creation and industry expansion. The funds can be used to purchase land, facilities, construction, equipment and infrastructure improvements. For more information, please visit http://www.governor.state.tx.us/divisions/ecodev/ed_bank/TID_loan_program.

Texas Capital Fund — This fund supports four programs, each administered by the Texas Department of Agriculture through the Office of Rural and Community Affairs. The programs are designed to create new jobs or retain existing jobs, primarily for low- or moderate-income individuals, in cities with fewer than 50,000 residents and counties with fewer than 200,000 residents that do not receive direct funding from HUD. For more information, please visit http://www.agr.state.tx.us/agr/program_render/0,1987,1848_6050_0_0,00.html?channelId=6050.

The four programs include the Downtown Revitalization Program, the Infrastructure Development Program, the Main Streets Improvement Program and the Real Estate Development program. These programs provide funds for land acquisition, public infrastructure improvements and real estate development designed to encourage business development and expansion.

More information on economic development grants, loans and tax incentives for communities can be found at http://www.window.state.tx.us/specialrpt/fedstate05/ and http://www.window.state.tx.us/specialrpt/stateloc05/. In addition to the grants and loans for cities and communities listed above, many other opportunities exist for businesses, industry and farms including the Small Business Association and the U.S. Department of Agriculture.